

TRANSCRIPT OF JURY TRIAL - EXCERPT
BEFORE THE HONORABLE VICKI MILES-LaGRANGE
UNITED STATES DISTRICT JUDGE
NOVEMBER 9, 2017

25 Proceedings recorded by mechanical stenography; transcript produced by computer-aided transcription.

Emily Eakle, RMR, CRR

United States Court Reporter
U.S. Courthouse, 200 N.W. 4th St.
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1 EXAMINATION INDEX

2 JOHN PAUL DICK TESTIFIES

3 Direct Examination (continued) by Mr. Singer..... 4
4 Cross-Examination by Mr. Mahaffey..... 14

5 DAN ARTHUR TESTIFIES

6 Direct Examination by Mr. Singer..... 120
7 Cross-Examination by Mr. Mahaffey..... 148

8 Reporter's Certificate..... 173

9

10

11

12

13

14

15

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1 (The proceedings were held November 9, 2017, in open court
2 with all parties and the jury present.)

3 THE COURT: Good morning, ladies and gentlemen. We are
4 ready to resume this case. And what -- we will work -- we
5 probably won't take a lunch break until about 12:30 since it's
6 going to be 10:30 when we're starting. We'll get in two hours
7 before lunch.

8 Mr. Singer, you're recognized.

9 And as someone -- one of the jurors did yesterday, they
10 needed to be excused, so just let Ms. Spaulding know that and
11 we'll take a break if that is -- if that type of break is
12 necessary. Thank you very much.

13 You're recognized, Mr. Singer.

14 MR. SINGER: Thank you, Your Honor.

15 JOHN PAUL DICK,

16 **DIRECT EXAMINATION (continued)**

17 **BY MR. SINGER:**

18 Q. Mr. Dick, just a reminder, of course, you're still under
19 oath. Understood?

20 A. Yes, sir.

21 Q. I would like to jump right in where we left off yesterday.
22 Might I ask, in your review of the record, the materials that you
23 were given in this case, did you see any instance where Newfield
24 made any sort of, I'll say helpful suggestion as to a particular
25 method of wellbore repair that needed to be done?

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1 A. No, I don't believe I recall seeing anything like that.

2 Q. Did you see anything where Newfield perhaps offered to send
3 a crew over to do some well -- wellbore repair for the --

4 MR. MAHAFFEY: Objection; Your Honor.

5 THE COURT: Just a moment, Mr. Smith -- I'm sorry,
6 Mr. Mahaffey.

7 MR. MAHAFFEY: The question's outside the scope of the
8 expert report. And under the Rule 26, Paragraph 2, disclosure of
9 expert testimony, the report must contain a complete statement of
10 all opinions the witness will express, the basis and the reasons
11 therefore. And I can show you the transcript where this witness
12 said he was not asked to look at repair of the well, he made no
13 study of the repair of the well. And now for counsel to start
14 asking about what he has seen or not seen about repair of the
15 well is outside the scope, I believe, of this witness's expert
16 report, and is certainly surprise and prejudicial to the
17 defendant.

18 MR. SINGER: If Your Honor please, I tried to be
19 careful in constructing that question. Really all I asked is his
20 review of the record. That's all I asked, if he saw something in
21 the record that indicated that Newfield wanted to do something
22 for repair, help and repair, guide and repair. That's really all
23 I'm getting at.

24 MR. MAHAFFEY: And that's my objection, Your Honor.
25 This witness specifically testified -- when I cross-examined him

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1 at his deposition, I was not asked to do that, I did not do it, I
2 did not make any investigation and I was not charged with doing
3 it. He had no opinion about repair of the well.

4 MR. SINGER: But, Judge, that's not really what I'm
5 driving at. That what he's, of course, concerned about and
6 afraid of, but all I'm getting at is whether Newfield offered,
7 based on his review of the paperwork, to do anything. Once I get
8 that in the record, I would like to move on.

9 MR. MAHAFFEY: Well, there's no foundation that he's
10 been given that. He can testify what he was given. There's no
11 foundation he was given emails back and forth between Newfield
12 and Singer Oil. And that's not the best evidence, either. The
13 best evidence would be to ask Mr. Schuppan, his client, or ask a
14 Newfield witness, not to have this expert speculate on what he
15 did or did not see when he wasn't given those things.

16 THE COURT: Okay. I'm going to sustain the objection
17 and I'll note your -- I mean, I'll sustain that and note your
18 objection, Mr. Singer.

19 MR. SINGER: Thank you, Judge.

20 Q. (By Mr. Singer) Mr. Dick, could you explain for the jury
21 and describe for this jury the concept of, I believe it was your
22 phrase, frac bashing, by telling us what frac bashing is?

23 A. Well, frac bashing is essentially -- when you hydraulically
24 stimulate -- hydraulically fracture an oil and gas well, if the
25 fluids -- if you -- if you adversely affect an offset well.

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1 Q. What do you mean by "offset"?

2 A. Well, oil and gas wells are dotted, especially in Oklahoma
3 and a lot of places. And oftentimes wells are completed --
4 they're producing from the same layer of rock. And oftentimes,
5 if you drill -- if a new well is drilled in some proximity to
6 another existing, older well, and that well is -- is fracked with
7 fluids and sand, that it can adversely -- it can enter that other
8 wellbore, adversely affect that other wellbore and leave remnants
9 of sand, fluids and pressures. So essentially what that is is
10 one well affecting another offset preexisting well nearby.

11 Q. Is there anything unique or singular about our current
12 example of frac bashing as between an existing vertical well and
13 a new horizontal well? Anything unique about our circumstance
14 here?

15 A. I'm not sure what you mean by "unique." I mean, it has been
16 reported and has happened numerous times in this industry. We're
17 kind of blessed in Oklahoma that we have a couple of plays
18 ongoing right now in western and southern Oklahoma that are very
19 active with new horizontal wells. So this occurrence is
20 happening and it's been reported many, many times.

21 Q. Is it foreseeable that this kind of frac bashing in, let's
22 say Kingfisher, because that's where our well is, let's say the
23 STACK play, because that's where this well is located, is it
24 foreseeable that in this busy area of Oklahoma that future fracs
25 of a substantially similar nature will take place? Is that

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1 foreseeable?

2 A. Yes.

3 Q. How will Newfield's announced plan for up to 30 wells per
4 section in this STACK play that they're active in affect --

5 MR. MAHAFFEY: Objection.

6 Q. (By Mr. Singer) -- affect the number of reasonably
7 foreseeable future frac bashing incidents between the horizontals
8 and the vertical guys. -

9 THE COURT: Very well. Just a moment, Counsel.

10 Mr. Mahaffey, you're recognized for --

11 MR. MAHAFFEY: The question assumes facts not in
12 evidence, that there's any evidence that there's going to be 30
13 wells drilled. They have never drilled 30 wells in a section.

14 MR. SINGER: If Your Honor please, it's in the report.
15 I could certainly ask him and then I could back it up --

16 MR. MAHAFFEY: It's all leading and suggestive.

17 THE COURT: I'll overrule as to the latter one and
18 sustain as to the early one.

19 Q. (By Mr. Singer) Mr. Dick, in your report there's a comment
20 about Newfield wanting to drill 30 wells per section. Do you
21 recall that?

22 A. Yes.

23 Q. Could you explain that and give Mr. Mahaffey a foundation?

24 A. The nature of these formations are very low probability,
25 very tight, so multiple wells per section at the same level are

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1 projected. There's -- right now, there's some sections that have
2 10, 11 wells either drilled and/or drilling as test sections.

3 However, the formation that they're producing from, called
4 the Mississippian formation, the Meramec is, in this area, 3- to
5 500-foot thick, then you have got another interval in the
6 Mississippian that's 3- to 500-foot or 800-foot thick. Then you
7 have got a Woodford zone shale that's underneath that.

8 And in documents -- if you go out to the websites for
9 different companies, Newfield, as we're talking about now, and if
10 you look at their investor presentations on their website, they
11 tout the potential for up to 30 wells per section in this area
12 because of the multiple layers that they can drill the horizontal
13 wells in over time.

14 And they're not unique. Other big companies have touted big
15 numbers, 24, 25, 30 wells per section in their investment
16 presentations. It has not been done yet, but that's the upside
17 potential that is provided by the companies to their -- in their
18 investor presentations.

19 Q. And 30 wells per section and frac bash -- I mean, 30 wells
20 per section next to preexisting vertical wells is where this frac
21 bashing takes place? It's putting so many so close together?

22 MR. MAHAFFEY: Objection; Your Honor. We're not here
23 on -- this is speculation outside the scope of this trial. We're
24 here on whether -- what damage we have done to this well, if any.

25 THE COURT: What's your response, Counsel?

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1 MR. SINGER: Well, Judge, it's actually a little more
2 than that because part of our claim is that Newfield is so very
3 active, we have other wells in the area, and that this
4 hyperactivity 30 wells per section creates a situation where it's
5 foreseeable that our other future wells might be affected, and
6 that's part of our nuisance claim.

7 MR. MAHAFFEY: No, we're not here on that. We're not
8 here on other wells, Judge. We're here on the Smith 1-18 well.
9 And if we killed the well, we can't kill it a second time. You
10 know, but we're here on that well, whether we have damaged it or
11 not, and if we have, can it be repaired or can it not be
12 repaired.

13 We're not here on trying any other speculative claim of what
14 could happen somewhere else. I mean, every time we leave the
15 house, we might run into someone on the highway, but, I mean, we
16 don't plan our lives around that and that would be speculation at
17 this point in time.

18 THE COURT: Last word, Counsel.

19 MR. SINGER: Thank you, Your Honor. There's nothing
20 speculative about this. Newfield has made an announcement to the
21 popular press that they're going to do 30 wells per section.
22 We're talking about frac bashing. Thirty wells per section is
23 going to make frac bashing more foreseeable. I have made -- feel
24 like I have made my point. I am willing to move on.

25 MR. MAHAFFEY: That misstates -- one, it misstates his

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1 testimony. He said that -- the investor relations said there's
2 up to that potential. He doesn't know of any place that's been
3 done more than 10 or 11, one. But, two, counsel's asking you to
4 try a case we're not here on. He's saying, well, we have other
5 wells in the area and this could in the future be an adverse
6 affect. That has no relevance to the case we're on today. We're
7 here on a specific well, Judge.

8 THE COURT: I have sustained --

9 MR. MAHAFFEY: And I think you have ruled on similar --
10 that this was not part of the case.

11 THE COURT: Exactly. I'll sustain the objection and
12 note your objection, Counsel.

13 MR. SINGER: All right.

14 Q. (By Mr. Singer) To wind this up, Mr. Dick, I have put a
15 copy of your report right over there. It has the big original
16 stamp on it. Do you see it?

17 A. Yes, sir.

18 Q. Okay. Briefly look through that and verify that that's a
19 true and correct copy. That's the same one I gave you yesterday.

20 A. Yes, sir, it is.

21 Q. And if that's a true and correct copy, is it helpful to the
22 fact finding that we're trying to do today?

23 A. I believe so.

24 MR. SINGER: Judge, the parties had previously made an
25 agreement that all the expert reports could be admitted. I'm not

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1 going to object to their experts, and I would ask that that
2 report be admitted as a proper exhibit --

3 MR. MAHAFFEY: I'm sorry? I'm hard of hearing. I
4 can't hear what he said.

5 THE COURT: Is there an objection?

6 MR. MAHAFFEY: Yeah, I object to the report. The
7 report's hearsay. Now, some of the exhibits that he's prepared,
8 but the rules are clearly that the report itself is hearsay. If
9 he wants to offer some specific exhibits, then that would be --

10 MR. SINGER: If Your Honor please, the report is in a
11 form of a summary. It's helpful to the jury and the fact finder.
12 I would ask why we would try to make this process any harder.
13 And I want to let his report come in too, so that fairness can
14 happen.

15 We have -- I thought that we had already agreed to this
16 earlier, not with Mr. Mahaffey, but with one of his lieutenants,
17 where these reports would be admitted. And that's my request,
18 Judge.

19 MR. MAHAFFEY: Your Honor, I raised yesterday -- if we
20 need to go off the record, Judge -- it has to do with a claim of
21 damages or some stuff about royalty owners, which is not a part
22 of this case. I, at a minimum, have that objection, that that
23 would have to be edited or stricken out for sure, because it's
24 not a part of the case. Maybe I'll take that up off the -- you
25 know, at a bench conference.

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1 MR. SINGER: I have heard that been said before, Judge.
2 I'm not exactly sure what he's upset about, but seems to me like
3 that's cross-examination. If there's something in there, a red
4 herring or something, cross-examine.

5 MR. MAHAFFEY: That's not the issue, Judge. It's
6 counsel's -- there's something that goes completely outside the
7 scope of what this Court has already ruled on on the preliminary
8 rulings that needs to be addressed, as that part of it, if the
9 report's going to come in at all.

10 MR. SINGER: Well, Judge, then what I would request is,
11 because of the time, that if you could take this under
12 consideration and during a break, when we don't slow this down
13 any more, Mr. Mahaffey and I can discuss what he wants out and
14 maybe we can take out what he wants out.

15 MR. MAHAFFEY: I did last night and it has not
16 been addressed. Counsel said he would address it, he did not
17 address it.

18 MR. SINGER: At the next break, if that's okay.

19 THE COURT: Very well. We'll do it at the next break.

20 MR. SINGER: Judge, with that lingering concern still
21 hanging in the air, the admission of my report, I'll pass this
22 witness.

23 THE COURT: Very well.

24 Mr. Mahaffey, you're recognized.

25 MR. MAHAFFEY: Thank you.

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1 THE COURT: And I'm mispronouncing your name, Counsel?

2 It's Mahaffey?

3 MR. MAHAFFEY: Mahaffey, yes.

4 THE COURT: I'm sorry. I have been mispronouncing.

5 Pardon me.

6 MR. MAHAFFEY: I'll respond to whatever you call me,

7 Judge.

8 CROSS-EXAMINATION

9 BY MR. MAHAFFEY:

10 Q. Mr. Dick, you have given numerous depositions and numerous
11 trial testimony over the years as an expert witness, have you
12 not?

13 A. Yes, sir.

14 Q. And how much is Singer paying you to appear and testify in
15 this case?

16 A. I think it's \$350 an hour for testimony in the -- for
17 depositions and trial, and 275 for engineering analysis before
18 that.

19 Q. Okay. Let's talk about your opinion you have given this
20 jury about frac communication of the Edgar well, the Newfield
21 Edgar well and the Smith well.

22 You have not been out on the Smith 1-18 well site, have you?

23 A. No.

24 Q. You have conducted no tests on any fluids or -- or on the
25 Smith 1-18 well, have you?

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1 A. I have reviewed fluid sample analysis, but I have not done
2 the sample analysis myself.

3 Q. You have not seen any chemical analysis of produced fluid
4 from the Smith 1-18 well to compare that with a chemical analysis
5 of the Newfield frac fluid, have you?

6 A. No, sir.

7 Q. And that's -- that would be a type of test we could do is,
8 say, what we call a signature analysis and see does the chemical
9 analysis of the frac fluids that Newfield injected in their well
10 match up with anything that came out of this well?

11 A. Yes, sir.

12 Q. And that hasn't been done?

13 A. Not to my knowledge.

14 Q. Okay. And what you have seen is a single Sandline swab
15 report, a two-hour report that was conducted on December 9th,
16 2015, a few days after Singer claims that we totaled his well?

17 A. Well, there was another swab run conducted a full year
18 later, I think in December of 2016, where they ran in with a swab
19 and ran in with a sinker bar and tagged fluid and swabbed up some
20 fluid and some sand.

21 Q. Have you seen that -- I don't know if you had seen that at
22 the time I took your deposition back in August, you'd only recall
23 seeing one report.

24 Did I do something?

25 THE COURT: I have never heard that in 22 years.

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1 (Brief interruption.)

2 Q. (By Mr. Mahaffey) Do you recall you gave a deposition in
3 this case August 18th, 2017?

4 A. That sounds about right, yes, sir.

5 Q. And at that time I asked you, on Page 90, starting at Line
6 24, "Are you aware when they went out there November 16th and ran
7 the plunger, they actually were able to swab the well down and
8 blow the well down quite a bit?"

9 | Your answer: "November what date?"

10 "Question: 2016.

11 "Answer: I am not familiar. I think the last -- the only
12 swab I saw was from a different date."

13 Do you recall me asking you that question at that time and
14 you giving that answer at that time?

15 A. Yes, I do.

16 Q. So you're saying now you have seen it since then?

17 A. Yes. And thanks for -- thanks for reminding me to go look
18 for it.

19 Q. And that was only taking -- you understand all they did was
20 go out and take water samples?

21 A. Well, they did more than that.

22 | Q. They swabbed it a little bit?

23 A. They swabbed it a little bit and they checked the TD, how
24 far they could get down and where they stacked out. So it was
25 more than just taking a water sample.

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1 Q. But what I want to look at today is what evidence you had
2 when you rendered your report. Your report is dated June
3 of 2017, is it not?

4 A. Yes, it is.

5 Q. And I think you told me in your deposition you had been
6 contacted about a year before we took your deposition, maybe
7 sometime in the summer of 2016?

8 A. Say that again.

9 Q. You -- you told me you had been contacted by Singer, hired
10 by Singer, I thought about a year before you gave your
11 deposition?

12 A. Yeah. Sometime early 2016, I believe.

13 Q. Well, you told me then about a year earlier. Is it
14 different?

15 A. Okay. I'm -- you have the date, so --

16 Q. You tell me. I mean, I'm just going by what you told me at
17 the deposition.

18 A. Whatever I said then is what it was. I just -- it's been a
19 while, I don't remember exactly. I thought it was sometime
20 around the spring of 2016, but it may have been before that.

21 Q. And that -- although they sent you some material, you really
22 didn't look at it until -- make your report until about when you
23 did your report in June of 2017?

24 A. That's correct.

25 Q. And let's look, though -- at that time, let's look at what

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1 you have.

2 Can we have Joint Exhibit 69, Page 3, please?

3 THE COURT: Was the last exhibit admitted, the joint
4 exhibit?

5 MR. MAHAFFEY: It hasn't, but I'm willing to -- it's a
6 joint exhibit. There's no objection to it. I'm going to offer
7 it at --

8 THE COURT: Why don't we go on and do that now and
9 then --

10 MR. SINGER: Yes, Your Honor. May we go beyond just
11 this exhibit and introduce all joint exhibits?

12 MR. MAHAFFEY: I'm not going to -- not going to agree
13 to that because I don't think all of them are going to be used in
14 the trial and they're not -- some of them are irrelevant.

15 MR. SINGER: I have no objection to introducing this.
16 I also have no objection to introducing all the joint exhibits.

17 THE COURT: And you do, Counsel, as to all?

18 MR. MAHAFFEY: Well, Judge, I think there's a lot of
19 them that no one's going to talk about. I mean, you know how
20 lawyers do, we paper up -- and I'm not sure we ought to saddle
21 the jury with all this STACK of stuff that no one is going to
22 talk about.

23 THE COURT: Well, if it's not talked about, obviously,
24 it won't go back, but to have to do that every time, it may be --
25 if there are any others that you can stipulate to --

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1 MR. SINGER: Okay. I get it now. I will agree that if
2 it comes up in the future, if it's a joint exhibit, that the
3 plaintiff has no objection.

4 MR. MAHAFFEY: And to answer your question, Judge, yes,
5 we're okay with admitting all of them as long as only the ones
6 that are referred to, because I think there's going to be --

7 THE COURT: They would only -- only those -- so don't
8 admit it unless you're going to use it.

9 MR. MAHAFFEY: Okay. I think -- that's -- to me that's
10 cleaner, but I'll do -- okay. Thank you.

11 Q. (By Mr. Mahaffey) Mr. Dick, do you recognize Joint
12 Exhibit 69? I think this Page 3, at least in part, is a report
13 from a company called Sandline Services regarding a trip they
14 made out to the well site on -- the Smith well on December 9,
15 2015.

16 A. Yes.

17 Q. And is this a -- so the jury knows, when a service company
18 goes out on behalf of an operator, this is a common thing they do
19 is to -- kind of like we have our plumber come out to the house,
20 they write up a work ticket to tell us what they did?

21 A. Well, yeah. Usually there's a work ticket that's more
22 expansive than this, but this is what I would describe as kind of
23 a summary, a daily report summary that takes all the stuff and
24 summarizes it down to a sentence or two.

25 Q. All right. And let's look at -- it gives -- obviously, at

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1 the top there it's got Sandline's address, a P0 box in
2 Kingfisher, phone number, then it identifies the well as being
3 the Smith 1-18 well, does it not?

4 A. Yes.

5 Q. And it talks about you go Highway 33 out of Kingfisher,
6 one-half mile east to Schaffenburg Road, and about a mile north
7 to the well site that you have already identified that we --
8 people in the business talk about being in the center of the
9 northwest quarter, northwest quarter of Section 18?

10 A. Yes.

11 Q. And then it says -- tells the well data. What does that
12 tell the jury what the 2 and 3/8 inch TBG means?

13 A. That's the size of the tubing. I earlier described that you
14 had the hole, and then you had a casing, and then inside you had
15 what they call tubing, which is the smaller-sized pipe that goes
16 all the way from the surface to the bottom that the oil and gas
17 produces through. So in this case, that's describing the size of
18 the pipe.

19 Q. And that 2 and 3/8 inch, so they know, I mean, that is a
20 piece of pipe that has 2-and-3/8th-inch outside diameter, is it
21 not?

22 A. Yes.

23 Q. The inside diameter of that is actually less than that?

24 A. Yes, it is.

25 Q. And based on your experience as an engineer, what's the

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1 approximate inside diameter of 2-and-3/8ths-inch tubing?

2 A. Well, it depends on the weight and the things. It's about 2
3 inch, give or take.

4 Q. And that roughly 2 inch, that's the straw, basically, that
5 you're hopefully going to pull the oil and gas out of, correct?

6 A. That's a good description, yes, sir.

7 Q. That is the straw that this plunger lift that we have had
8 some testimony goes down in, and as it -- the fizz from the coke
9 hopefully builds up, it shoots it up or lets it come up at some
10 point to produce the fluids, right?

11 A. Goods description, yes, sir.

12 Q. Now, let's see what it says there, because there's some
13 things that a lot of people don't know.

14 It says, rode to location and rig up. What does it mean to
15 rig up?

16 A. That means they back the swab truck up, secure it, and raise
17 it and -- over the wellhead and are ready to start going in the
18 hole to work on it.

19 Q. And if we go to the last line, the last entry there says,
20 "Rig down and move off," does it not?

21 A. Yes.

22 Q. And those two operations, even on this -- this is a
23 smaller -- what we call a workover completion rig, is it not?

24 A. Swab unit, probably.

25 Q. Swab unit?

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1 A. Yes.

2 Q. But it still takes, what, 20, 30 minutes to rig up, maybe
3 20, 30 minutes to rig down?

4 A. Sometimes a lot more than that, but, yes, depending on
5 weather and this, that and the other, but yes.

6 Q. Now, let's talk about what -- we have some other acronyms
7 there, TP0, CP300. Tell the jury what TP0 and CP300 means.

8 A. Well, TP stands for tubing pressure. So that at the surface
9 is going to be what the gauge tied to the tubing, what is that
10 pressure.

11 CP -- do you want me to go ahead and go on or --

12 Q. Yeah. What's CP?

13 A. CP is casing pressure. So the area between the tubing and
14 that casing I talked about earlier, it also will have a gauge,
15 pressure gauge on it, and that tells you something also, and it
16 says 300 pounds.

17 Q. Okay. And let's just make sure, put it in -- if the casing
18 is seeing some pressure or if the tubing is seeing some pressure,
19 then that means it's sensing something coming through the
20 perforations in the formation that has some pressure, does it
21 not?

22 A. It's sensing that there is some pressure. Where it's coming
23 from is -- in this case is tough to figure out.

24 Q. And certainly if the tubing pressure's zero, that might mean
25 because you have got enough hydrostatic -- you have got a column

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Oklahoma City, OK 73102 * 405.609.5403

1 of fluid there that's masking or stopping any pressure that might
2 be coming in down in the formation?

3 A. Yes, because fluid has a certain weight.

4 Q. Sure.

5 A. So essentially, the -- saltwater would be about .45 PSI per
6 foot. So every foot, it's about .45 pounds. So if there is
7 fluid in that tubing, then there may not be any pressure at the
8 surface, but that doesn't mean that there's no pressure downhole
9 because you have fluid -- that means there wasn't any gas to
10 increase the pressure at the surface.

11 Q. And eventually, the object of the exercise is you have to
12 unload, you have to lower the pressure in the tubing sufficiently
13 where the -- where the bottom-hole pressure is going to push the
14 fluids out?

15 A. Right. You have to have a pressure in the tubing that's
16 essentially less than in the formation to allow the formation to
17 kick -- to expel their hydrocarbons into the tubing. So that
18 pressure has to be less in the tubing than it is in the
19 formation.

20 Q. And early in the life of a well, if we're lucky, the
21 reservoir pressure is enough just to make the well flow up the
22 tubing or casing, is it not?

23 A. Yes, sir.

24 Q. But as we get these late-life older wells, invariably you
25 have to have some form of artificial lift out there, whether it's

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Oklahoma City, OK 73102 * 405.609.5403

1 this plunger lift or a pumping unit or what we sometimes -- I
2 think there has been or may be the term ESP, we hear that now.
3 Tell the jury what an ESP is.

4 A. ESP is an electric submersible pump. And essentially what
5 it is is a pump that they run with cables down into the tubing
6 to -- on some wells in some parts of the state will make
7 thousands of barrels of water and oil, hopefully. And
8 essentially, it's a pump that pumps the water from the bottom.
9 So that's for kind of extreme situations where you're making a
10 whole lot of fluid.

11 Q. And that -- you may know this, I think it was a high school
12 classmate of mine, Mr. Arutunoff with Phillips Petroleum, I think
13 -- Russian scientist that kind of was -- developed that ESP back
14 some years ago.

15 A. Many years ago, yes.

16 Q. Yeah.

17 Now, here it says IFL500, with an apostrophe, FFL1300
18 apostrophe. Tell the jury what that means.

19 A. Okay. So the swab rig, what it is, it has a line on it.
20 And they're going to drop what they call swab cups down a hole.
21 And what a swab essentially does is it goes down below the
22 surface of the fluid and pulls it back up real fast and brings
23 the fluid up with it.

24 So you're trying to -- you're trying to bale out the water
25 that's in the tubing, try to relieve the pressure. But as you go

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Oklahoma City, OK 73102 * 405.609.5403

1 down, it's going down an empty tubing, all of a sudden it hits.
2 When it hits fluid, you know it because all of a sudden it's like
3 jumping off a cliff, you hit water, you know it.

4 So the Sandline comes -- the swab line comes down and the
5 cups will hit the fluid. So what the IFL means is initial fluid
6 level, meaning when they first went in the hole, they found fluid
7 500 feet from the surface.

8 And then the final fluid level is 1,300 feet, which means
9 they pulled enough fluid where the last time they went down they
10 found fluid at 1,300 feet, and that's where they pulled from. So
11 it means, in this case, they -- they pulled 800 foot off -- of
12 water off of that.

13 Q. And that 800 feet, if we take the inside diameter of that
14 tubing of 2 inch, and you as an engineer can do a volumetric
15 calculation, but we have it right up there for us, that 800 feet
16 equated to about 2.3 barrels of fluid, did it not?

17 A. Where did you see that?

18 Q. Right after FFL1300.

19 A. Oh, yeah. It's 2 inch by 800 feet, and it's not that much
20 fluid.

21 Q. And that's -- that's about -- is that kind of a -- in 2-inch
22 tubing, is that kind of a rule of thumb, for every 700 feet
23 you're going to have roughly two barrels of fluid?

24 A. Yeah, about that.

25 Q. So this 800 feet, we got 2.3 barrels?

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U.S. Courthouse, 200 N.W. 4th St.
Oklahoma City, OK 73102 * 405.609.5403

1 A. Yeah.

2 Q. And I think -- you talked earlier, maybe made the
3 conversion, didn't tell the jury. They probably know this, but
4 let's just put it in the record. About how many gallons are in a
5 barrel?

6 A. Forty-two.

7 Q. All right. So that was about 100 gallons, plus or minus,
8 of a fluid that was recovered at that time?

9 A. Yes, sir.

10 Q. Now, let's look at the -- let's look at the next comment.
11 "Fluid levels staying at 1,300 feet."

12 A. Yes, which tells me that he had made -- I won't say
13 repeated, but more than one run. So he may have hit fluid at
14 1,300 feet, pulled fluid up, and when it went back down it was
15 still at 1,300 feet. So it didn't lower the level of the fluid
16 from when he had hit it the time before. I don't know how many
17 runs. I don't recall seeing the ticket that did a description of
18 every run.

19 Q. Well, we'll look at that, but what that means, the fluid's
20 not moving up, it's not going down, it's level at 1,300 feet?

21 A. Yes, sir.

22 Q. And what you know today is, is they didn't go out to the
23 well again for almost a year later, November of 2016, correct?

24 A. That's my understanding, yes, sir.

25 Q. And at that point in time, the fluid level was still at

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Oklahoma City, OK 73102 * 405.609.5403

1 1,300 feet, wasn't it?

2 A. Yes, sir, it was.

3 Q. And then after a few swab runs, they were able to swab it
4 down to about 6,200 feet, down near the top of the plunger lift?

5 A. They -- they ran and -- they stacked out at 6,200 feet, so I
6 assume that's where they swabbed from.

7 Q. So anyway, no evidence -- if they had continued swabbing,
8 they might have been able to swab it more down on December 9th,
9 but they only ran a couple swab runs.

10 A. I wouldn't say that. I mean, you have given that reservoir
11 a year to -- at this point, we're about 6,700 to 7,400 feet, so
12 you have got 5,500 foot of fluid, so about 3,000 -- probably
13 around 2,000 pounds of pressure.

14 Q. How many swab runs did they run?

15 A. I don't know.

16 Q. Okay. Let's look. We have it in front of us. Pull up Page
17 -- it's 3099, Page 6 of this exhibit.

18 A. My point was is that comparing it a year later, pressure can
19 disperse into the formation.

20 Q. We have the field ticket here, do we not?

21 A. Yes.

22 Q. And the field ticket shows they were out there for a total
23 of two hours, from -- wrong one.

24 It's 3099. It's Page 6 of the report.

25 Doesn't that field ticket show that the swabber, Sandline,

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1 was out there for only two hours?

2 A. Yes.

3 Q. They arrived on location at 10:00 a.m. and they were leaving
4 at noon?

5 A. Well, that was their -- I think that was their final run was
6 at noon, but they didn't spend a lot of time out there that day,
7 it doesn't appear so.

8 Q. By the time they spent a half hour or so rigging up and a
9 half hour rigging down, they might have been over the hole for an
10 hour and ran a couple swab runs to recover that 2.3 barrels?

11 A. Yes.

12 Q. And we don't know of any analysis, no chemical analysis that
13 was done to that 2.3 barrels, do we?

14 A. I don't think --

15 Q. You have never seen anything?

16 A. Not on the samples from that date, no, sir.

17 Q. And if we had had that and -- that might have been something
18 helpful to see if there was any indication that the fluid in the
19 well had any indices of being frac fluid. We don't have that, do
20 we?

21 A. I don't believe so.

22 Q. And anyway, it shows -- there's some other numbers there, if
23 you want to tell the -- the jury there. It says, underwater
24 tank, tank -- what are the significance of those numbers there,
25 two, hyphen, one-and-a-half and --

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1 A. Every barrel on location's -- the different size tanks. And
2 so a lot of times how they measure it is they run a gauge line in
3 the tank, and depending on the number of inches, there's --
4 it's -- there's a volume.

5 So it's like a -- depending on the size tank, there's going
6 to be -- they're going to convert the number of inches of fluid
7 that they -- they get out to barrels.

8 Q. And let's look -- let's look at what -- and the barrels per
9 hour. It made oil, didn't it? Look over in that column, barrels
10 per oil. Tell the jury what that means about oil .8/1.5?

11 A. I really am not sure. It says oil .8 and I assume water is
12 1.5, but I don't have that -- I know for sure.

13 Q. Sure. That's what you would assume is that it made 2.3
14 barrels of total fluid, and the people that are out there on the
15 location say that that's allocated eight-tenths of a barrel is
16 oil and 1.5 barrels is water, which that totals up to 2.3
17 barrels?

18 A. Yes, sir.

19 Q. And the total charge of this was \$200?

20 A. That's what it says.

21 Q. Now, isn't it true that at the time you prepared your report
22 the only evidence you had of frac communication between the
23 Newfield well and the Smith well was this report, Exhibit 69,
24 these couple of pages where the Sandline says, quote, well may
25 have been fracked into, and you talked to the operator? Those

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Oklahoma City, OK 73102 * 405.609.5403

1 are the two things you had?

2 A. I had -- I had more evidence than that. I mean, by reading
3 this information --

4 Q. I'm talking about documentary evidence. Isn't that the two
5 things that you had? The operator told you, hey, I'm not
6 producing the well and you had this Sandline report. You didn't
7 have any water analysis, you didn't have anything else except
8 this and his report, and that's what you addressed in your report
9 was, quote, well may have been fracked into. That was what was
10 reported to you?

11 A. Documents, yes.

12 Q. Okay. And did you have any input then into the lawsuit that
13 was filed here in June of 2016 against Newfield and Haliburton?

14 A. No.

15 Q. Can we pull up Joint Exhibit 83, Page 9, please.

16 Did you have any input then in advising your client, based
17 upon these tests -- this evaluation and this swab report and your
18 conversation with him, that -- that they ought to sue Newfield
19 and Haliburton for recklessly, willfully, maliciously,
20 fraudulently, grossly, wantonly and carelessly fracking into and
21 destroying the -- this alleged \$359,000 Smith well?

22 A. I had nothing to do with this document. I don't use those
23 big words if I don't have to.

24 Q. Based on your review, do you know of any other evidence that
25 your client had other than this \$200 visit to the well by

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Oklahoma City, OK 73102 * 405.609.5403

1 Sandline Services on December 9th for forming a basis that their
2 well had been fracked into by Newfield?

3 A. I just showed you -- we just talked about what I had. They
4 may have had other information that I didn't.

5 Q. This is all you had is what we had up on the board earlier,
6 is that couple-of-page report from Sandline?

7 MR. SINGER: Judge, I'll object to the form, if he's
8 restricting that to documents only or if he's talking about
9 people he interviewed or other aspects.

10 MR. MAHAFFEY: I asked him earlier and he said he had a
11 conversation with the operator.

12 THE WITNESS: Yes.

13 Q. (By Mr. Mahaffey) I mean, isn't that what you put in your
14 report, based on a conversation with the operator and this swab
15 report that says they -- quote, the well may have been fracked
16 into, that is what JP Dick was basing his opinion on that it may
17 have been fracked into?

18 A. Not only that. I mean, I also -- as we have talked about,
19 proximity. You had five fracs with a lot of sand, a lot of water
20 being pumped within a few hundred feet of this wellbore in the
21 same formation, in the same -- in the same formation.

22 So there's a lot of information -- you showed me the two
23 documents, but there's also other information that goes into my
24 forming my opinion as to what my opinions were.

25 Q. Closology? That's what we call closology, isn't it?

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Oklahoma City, OK 73102 * 405.609.5403

1 A. And also professional experience and professional opinion.

2 Q. Well, let's talk about that. You have been involved -- I
3 mean, a lot of your clients, Devon, Continental, they do the same
4 thing Newfield does, they drill a lot of these horizontal wells
5 and frac them, correct?

6 A. Yes, they do.

7 Q. You have seen microseismic data on frac jobs?

8 A. Not in this area, but in the -- in the region, yes.

9 Q. In the region. You have certainly see some in Logan County,
10 which is basically just east of Kingfisher County?

11 A. Logan, Garfield, Payne, Major. Yeah, I have seen it in most
12 counties. I don't think I have seen any in Kingfisher, but I may
13 have.

14 Q. Microseismic in the Mississippian?

15 A. Yes.

16 Q. And we don't necessarily know where all the frac fluids are
17 going to go. You can have different stages that have different
18 frac heights, can you not?

19 A. Absolutely.

20 Q. Some are large, some are small?

21 A. Mother nature's laid down those rocks in a -- you know, it's
22 not uniform. So every -- every zone, every frac can be
23 different.

24 Q. And you have also seen wells that have been as close or
25 closer than 200 feet that are not adversely affected by a frac?

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1 The fact that they're close does not necessarily mean that the
2 frac is going to hit them or affect them?

3 A. I have seen wells that are south or north of a frac by a
4 couple hundred feet not get fracked into. I have not seen any
5 that have been east or west of hydraulic fractures that have not
6 had some effects.

7 Q. You have seen some that have been fracked into, but they
8 have been able to restore them to production?

9 A. I have seen that as well.

10 Q. And let's look at the indices that would have told you here
11 that you might have had a frac. You told the jury that, yeah,
12 they were putting in -- you gave some big numbers -- 1.3 million
13 gallons of water and at surface pressures that were as much as
14 9,500 PSI, correct?

15 A. Yes.

16 Q. And what was the virgin -- what we call in the industry
17 original pressure, virgin pressure of the -- this Meramec down
18 around 7,500 feet, 7,600 feet?

19 A. This is a normal pressured area, so it's going to be about
20 .44 PSI per foot. So at 7,500 foot, you're going to be about
21 3,300 pounds.

22 Q. Okay. And what -- to relate that to something that's
23 meaningful to all of us, that means you have got to overcome --
24 that would be the normal pressure gradient, essentially you're
25 going to have overcome 3,300 pounds to move a column of fluid to

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1 the surface, are you not?

2 A. Say that again.

3 Q. Well, at the 7,500 feet, what kind of pressure are you going
4 to have to have -- if you had a pressure in the wellbore, what
5 kind of pressure are you going to have to have at the bottom hole
6 to make the fluids come up and purge out of the top of the pipe?

7 What's the hydrostatic pressure of a column of fluid 7,500 feet?

8 A. Well, that's what I'm saying. That's about 3,300,
9 3,400 pounds, but if you don't -- that's liquid. That's a full
10 column of fluid. If it's gas --

11 Q. Yeah. I'm talking about fluid, like water.

12 A. Yeah, water. Liquid.

13 Q. That's what you're fracking with is water, correct?

14 A. Yeah.

15 Q. And if you really had good communication between the
16 Newfield well and the Smith well, you would have expected to see
17 purging of fluids out of the Smith well, the tanks perhaps
18 overflowing, would you not? You have seen that?

19 A. If the well was shut in, it wouldn't have come out. I think
20 that's what we found when we see a fluid level of 500 feet is
21 that the fluid level came through the wellbore up into the
22 reservoir, because the reservoir pressure in this Smith well was
23 not -- and around this wellbore wasn't at 3,400 pounds when the
24 off-site well was fracked.

25 Q. And that didn't happen here? We didn't have that? Have no

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Oklahoma City, OK 73102 * 405.609.5403

1 evidence there was purging, enough pressure to cause fluids to
2 come up out of the wellbore?

3 A. To my understanding, there was no fluids that went outside
4 the well, tubing, into the tanks or anything else like that.

5 Q. Now, you talked about a -- perhaps some depletion around --
6 what we call pressure depletion around the Smith wellbore.

7 Certainly that's normal after you produce a well, a well starts
8 -- depletes within its radius of a -- radius of a drainage, does
9 it not?

10 A. Yes, it does.

11 Q. And have you made a calculation of the drainage area of the
12 Smith 1-18 well?

13 A. Well, the difficult part is you have got four zones open
14 and --

15 MR. MAHAFFEY: And, Your Honor, objection. It's not
16 being responsive. I think that's a yes or no question.

17 Q. (By Mr. Mahaffey) Can you answer yes or no, first off?

18 A. No.

19 Q. Why not? I'll give you a chance to -- why haven't you done
20 that, Mr. Dick?

21 A. Well, you have got four zones open. You have got the
22 Mississippian, the Skinner, Prue, and you have also got the
23 Oswego. I don't recall. There's another zone up above the
24 packers. And it's difficult to -- since they are all producing
25 together, commingled, you don't know exactly what zone

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United States Court Reporter
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Oklahoma City, OK 73102 * 405.609.5403

1 contributed all or their proportionate share.

2 Q. Okay. But you have looked at, in the past, at this tight
3 rock, and you do know that this very limited drainage may be only
4 something like 10 acres?

5 A. Five, 10 acres, yes, sir.

6 Q. And here, you have looked at other Mississippi wells, and a
7 lot of those out in this area are a lot more oily. I mean, this
8 well has cued about 800,000 MCF of gas?

9 A. Yes, sir.

10 Q. And 27,000 barrels of oil as of -- roughly at the time that
11 it was purchased by Mr. -- by Singer in January of 2015?

12 A. Yes, I believe so.

13 Q. Another well that you have looked at in the past, like the
14 Coffey 1-14, is Mississippi only, it had similar oil, 24, 25,000
15 barrels on a plunger lift, but only made about 300,000 MCF and it
16 was Mississippi only?

17 A. Yes.

18 Q. So that might be an indication that some of that gas had
19 been coming from these uphole zones like the Prue, Skinner,
20 Oswego?

21 A. It very well could.

22 Q. And certainly you're -- I don't know if you have looked at
23 the logs. It's your belief that Energy Services ESCO, when they
24 drilled that well in 1977, they wouldn't have completed the Prue,
25 the Skinner or the Oswego if they didn't think they were going to

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1 be productive?

2 A. Yeah. I believe -- I believe their primary target was the
3 Mississippian, which is the lowest zone, but I do also believe
4 that they saw some indications of productive oil and gas in the
5 uphole zones or they wouldn't have completed those uphole zones.

6 Q. But let's -- let's give -- explain to the jury a little bit
7 about the concept of pressure gradient. The analogy I like to
8 use, when you throw a rock into the lake, you get ripples, don't
9 you?

10 A. Yes.

11 Q. And the ripples are larger nearer where you throw it in and
12 they dissipate as you get further away, do they not?

13 A. That's correct.

14 Q. And this is my Smith wellbore. As we're draining this 5 or
15 10 acres, is it not true that -- I can't do this real well, but
16 I'll try to make these waves bigger -- or actually, I'll do it
17 the other way. As you move, you have more pressure depletion
18 near the wellbore; as you move out, it's less?

19 A. That's correct.

20 Q. And once we get to this whatever it is, this 5- or 10-acre
21 boundary, then we're -- you expect that you're essentially back
22 at reservoir pressure, do you not?

23 A. What we have found by drilling a lot of these new wells is
24 that you didn't drain very far from these old vertical wells. So
25 you have -- most of your drainage is going to be coming from

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Oklahoma City, OK 73102 * 405.609.5403

1 nearby. That's going to be -- essentially your effective average
2 drainage may be 10 acres, you may have drained out 20 or 30
3 acres, but the majority of your drainage is going to be within
4 the first 5, 10 acres -- first 5 acres or so.

5 Q. Tell the jury what the radius is of a 5 acre -- if it's
6 drained 5 acres, what would be the radius of that? And if you
7 need a calculator, I --

8 A. Yeah. Area equals pi R squared, so.

9 Q. Yeah. Let me --

10 A. They wouldn't let me bring my phone in.

11 MR. MAHAFFEY: May I approach the witness, Your Honor?

12 THE COURT: You may.

13 Q. (By Mr. Mahaffey) This is not an engineering calculator,
14 Mr. Dick, but I think it will be --

15 A. I may not be able to work that thing.

16 Q. I'm not sure it has pi on it. Can we just use like --

17 A. 3.14.

18 Q. I trust your calculation, but I'm going to --

19 A. You don't trust my calculation.

20 You said 5 acres?

21 Q. Yeah.

22 A. Approximately 263 feet.

23 THE COURT: And, Mr. Mahaffey, I'm going to ask you to
24 just slow down a little bit. The court reporter is having
25 to keep up with you and--

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1 MR. MAHAFFEY: I apologize. I get wound up and I --
2 thank you, Judge. I'll do that.

3 THE COURT: Thank you.

4 THE WITNESS: Does that match your calculations?

5 Q. (By Mr. Mahaffey) That sounds about right. And it -- you
6 said it might be as much as 10 acres if -- and I put an R up here
7 for radius, but if it was a 10-acre drainage area, what kind of
8 radius is that, theoretical circle would we have?

9 A. Approximately 372 feet.

10 Q. Three --

11 A. 372.

12 Q. Thank you.

13 MR. SINGER: Mr. Mahaffey, are you going to still use
14 that?

15 MR. MAHAFFEY: I'm going to use the easel. I'll move
16 it right over here for right now, but it will be a few minutes
17 before I use it.

18 Q. (By Mr. Mahaffey) You would agree that if the -- one, if --
19 back up.

20 Are you aware that the spacing unit for the Smith well is
21 160 acres?

22 A. Yes, I know.

23 Q. I think that's in the completion reports you have seen, is
24 it not?

25 A. Yes, it is.

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1 Q. And the drainage area in the Mississippi of some of this oil
2 and gas actually came out of the three uphole zones, could even
3 be less than 5 or 10 acres, could it not?

4 A. I think most of it probably came from the Mississippian, but
5 it could be, yes, sir.

6 Q. Whatever it is, though, even if it was as much as 10 acres,
7 doesn't that mean there's at least another 150 acres, maybe as
8 much as 155 acres in the Mississippian that has not, will never
9 be drained by the Smith well?

10 A. Yes.

11 Q. And you know that the current economics, the operators like
12 Singer, they're not drilling these vertical wells, they can't
13 afford them economically to try to get -- to get that reserve?

14 A. Very few vertical wells are being drilled in the State of
15 Oklahoma right now, especially for these formations.

16 Q. The state of the art is the horizontal drilling?

17 A. Yes.

18 Q. So if the mineral owners, the royalty owners, the other
19 working interest owners, the State of Oklahoma is going to get
20 their gross production tax, we're going to have to drill some
21 horizontal wells on that 100 -- on that northwest quarter to try
22 to get the rest of those Mississippi hydrocarbons, Meramec
23 hydrocarbons, are we not?

24 A. Yes.

25 Q. Okay. Now, let's look at another indices of what might have

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1 been helpful to know that this well had been fracked into. You
2 know that the chlorides of the Mississippi out here range from,
3 what, 35,000 to 60,000 parts per million?

4 A. Oh, chlorides for the Mississippian can run 110, 120,000
5 parts. It's pretty salty.

6 Q. Okay. I'm going to write up here the word "chlorides" and
7 I'm going to write "Meramec." That's the interval that you told
8 us is the target interval, correct?

9 A. Yes, sir.

10 MR. MAHAFFEY: May I approach the witness again, Your
11 Honor?

12 THE COURT: You may.

13 Q. (By Mr. Mahaffey) You have seen -- take that --

14 A. Do you want your calculator back?

15 Q. You have probably seen core samples from the Meramec in the
16 past, have you not?

17 A. I have.

18 Q. And do you recognize -- that's similar to what you have seen
19 before, that core sample that's from one of the Newfield wells
20 out in the Meramec?

21 A. This core sample's from the Rother 1H-5X. I believe this
22 was a -- actually a core that Newfield used -- the results of
23 this core is what they used to get the designation of a shale
24 reservoir for the Meramec.

25 Q. They were the leader, they were one of the first ones to get

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Oklahoma City, OK 73102 * 405.609.5403

1 the Corporation Commission to authorize these extended 2-mile
2 laterals in the Meramec, were they not?

3 A. Yes, sir.

4 Q. And do you concur that's a very tight, low permeability
5 rock?

6 A. Yes, it is.

7 Q. But despite that, you said, hey, it's 200, 250 foot thick
8 and the Mississippi is, what, 500 foot thick overall?

9 A. Well, in this area, the Meramec's around 250, 300 foot
10 thick, I believe, in this township. And then the Osage, the rest
11 of the Mississippian, is probably 3 or 400, and as you go to the
12 west it gets over a thousand foot combined thickness.

13 Q. And let's tell -- we have heard some concepts before, but
14 since you're our first engineer to testify, Mr. Dick, we're going
15 to let you explain to the jury, there was some statements in
16 opening about porosity and permeability. And that may have an
17 effect on how you're going to move fluid, so that's what I want
18 to ask you.

19 What's the concept of porosity? Tell us what porosity
20 means.

21 A. Porosity are the void spaces within the rocks. And,
22 obviously, they're very, very small, but they're essentially --
23 porosity is the void spaces within the rocks that have the --
24 that hold the oil and gas and water in place. And it's where
25 the -- if you have got, like, three rocks pulled together, it may

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1 be that -- that little triangle area in between the rocks, and
2 that's called porosity.

3 Q. And historically, a lot of early development, Saudi Arabia,
4 early statehood development, was more sandstones that had real
5 high porosity?

6 A. Yes. You could look at -- like putting marbles in a jar,
7 you would see all that -- and some of that sand over there looks
8 very similar to that, only smaller.

9 Q. Like the old Burbank wells up in Osage County that -- 10,
10 20,000 barrels per day, they had 20-plus percent porosity?

11 A. Yes, sir.

12 Q. Let's compare that. This type of rock, we're down, what, in
13 the 2, 3 percent, maybe 4 percent porosity at most?

14 A. The Meramec has some intervals that are a little bit more
15 sandy. You can get up to 8 percent, but typically you're in that
16 4 to 5 percent porosity with some 2 percent at the low end, yes.

17 Q. And then -- not all of that is oil and gas, though, is it?

18 A. No.

19 Q. If we have -- an example I like to use, let's think -- you
20 correct me if I'm wrong, if we have a gallon jar and we were to
21 fill it with marbles that are the same size, all exactly the same
22 size, isn't it true mathematically that would be 40 percent
23 porosity?

24 A. That's correct.

25 Q. So what that means, we'd have six -- if we wanted to fill up

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1 that gallon jar then with all those marbles in it that are all
2 the same size, we could only put about four-tenths of a gallon in
3 there because six-tenths of it is the marbles?

4 A. Yes.

5 Q. Here at 4 to 5 percent, what we're saying, correct me if I'm
6 wrong, is that 95 percent of this piece of rock ain't going to
7 hold fluids, but there's maybe 5 percent?

8 A. On average, yes. Yes.

9 Q. So back to our gallon jar. If we had this Meramec in it, it
10 may take some work to get in those pressures there, but 5 percent
11 you might get 5 one-hundredths of a gallon in that gallon jar?

12 A. That's correct.

13 Q. Okay. And then there's another concept that's been talked
14 about, which is permeability. Tell the -- well, before we leave
15 porosity, let me back up.

16 What kind of water saturations are you seeing out here in
17 the Meramec?

18 A. Forty to 50 percent water saturations.

19 Q. So relate that then. Even though we're saying that maybe
20 5 percent of the volume of this rock might hold fluids, maybe
21 only half of that's oil and gas and half of it's this salt water
22 we're getting ready to talk about?

23 A. Yes, sir.

24 Q. Finally, tell us -- explain the concept of permeability, how
25 permeability affects the flow characteristics or the ability to

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1 recover this fluid from this 5 percent porosity?

2 A. Permeability is the concept of -- of the ease of which
3 fluids can move through a medium. So, you think of like a
4 bathtub or if you had a -- marbles he was talking about, that's
5 essentially infinite permeability because it's going to fill up,
6 there's nothing restricting it. And the -- the unit is called
7 Darcy, and then you get the mili-Darcy, which is a thousandth of
8 that. And so it's a measure of how easy or how uneasy fluids
9 move through rocks.

10 And so in this case, we're talking about very -- when they
11 say tight rocks, that means very, very low permeabilities, that
12 means that it is very difficult for fluids to move through the
13 rocks even with a lot of pressure. Now, the more pressure we
14 have, the more -- the more fluids can move through there, but the
15 permeability is a measure.

16 Typically, it's related to porosity. The higher the
17 porosity, the higher the permeability, but that's not always the
18 case. You may have -- you may have porosities that aren't
19 connected to each other. So you may have a high porosity, low
20 permeability formation, that occurs sometimes.

21 Q. And we -- mother nature is not like my gallon jar example.
22 Those marbles are all different size and we have got busted up
23 particles that are in those spaces. Be like taking a bunch of
24 seashells on the beach and crunching them up and compressing them
25 together into high pressure, is kind of what we have, isn't it?

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Oklahoma City, OK 73102 * 405.609.5403

1 A. Bunch of different minerals, sandstones, limestones, shales,
2 clays, a bunch of different -- different things.

3 Q. And thus, it becomes a tortuous path for fluids to flow
4 through because of the low permeability?

5 A. Yes. It's not just a straight arrow.

6 Q. And is that the concept behind the fracture stimulation
7 technology is to hope -- hopefully open up a few of these
8 microfractures in the rock, keep them propped open with sand and
9 hopefully that will help increase the permeability to flow that
10 fluids through the wellbore?

11 A. Well, you know, I think really the concept is you're trying
12 to get fractures, you're trying to get high permeability conduits
13 of the wellbore as far away from the wellbore as you can so the
14 oil and gas doesn't have to go a thousand feet to the wellbore to
15 come to the well -- to be produced, it only has to go maybe a
16 couple hundred feet to a high pathway fracture that can go to the
17 wellbore from there.

18 Q. Well, let's go back to what we're here on. Let's go back to
19 the concept and your opinion that the Newfield well may have
20 communicated or fracked into the Smith 1-18 well. If it did, you
21 would have expected to see an influx of some fluids, either
22 reservoir fluids or frac fluids, would you not?

23 A. Yes.

24 Q. And you have told us that the Meramec -- I have written up
25 on the easel board here 110,000 parts per million. That's what I

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1 heard you say it might be, 110,000 parts per million. Pretty
2 salty.

3 A. Yes. And as you get up -- dip into other counties, it can
4 get up to 120, 130,000 parts per million.

5 Q. And that's what we -- sometimes the chemical -- CL for
6 chlorides, correct?

7 A. Yes. And as a comparison, seawater is like 20, 25,000
8 chlorides.

9 Q. More salty than seawater?

10 A. Yeah, three to four times.

11 Q. And did you do a review of the frac fluid, this
12 101.3 billion gallons that you say that Newfield used in the
13 well -- by the way, that's not all at one stage. That was -- was
14 that the entire well or was that for each stage?

15 A. Each stage. I had it listed here in one of my exhibits.
16 Each stage is approximately -- well, they range from 3 to 7,000
17 barrels per stage and -- at the first seven stages. And so you
18 multiply that times 42, but each -- each individual stage is, on
19 average, around 4 or 5,000 barrels.

20 Q. So it might have been 20,000 gallons per stage. You were
21 looking at multiple stages that were --

22 A. Yes, sir. Yes.

23 Q. All right. And the -- you're aware that Newfield had KCL,
24 potassium chloride, that was in their frac fluid, are you not?

25 A. Yes.

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1 Q. That -- I mean, that -- part of potassium chloride, but
2 that's common in this -- frac jobs that you don't want the clay
3 swelling, so the operators will use some, what they call KCL
4 water?

5 A. Yeah. Typically what that is is fresh water with the
6 addition of potassium chloride to help prevent the swelling of
7 the clays and -- so it doesn't hurt the frac.

8 Q. And have you reviewed the -- any analysis -- seen any
9 reports in the Newfield material that tells you what the
10 chlorides were of that water?

11 A. I think I did. I got all the frac information that was
12 provided us, but I don't recall what that was.

13 Q. Let's --

14 A. I believe I included that in some of my exhibits or some of
15 my attachments.

16 Q. I haven't seen anything in your analysis, but I want you to
17 assume there's going to be evidence from Newfield that it's
18 around 8,000 parts per million, is what their frac fluid was.
19 Okay? 8,000 parts per million, let's assume that was the case.

20 If we had seen communication between the Newfield Edgar well
21 and their frac job and the Singer Smith well, we would have
22 expected to see some elevated chlorides, either in the range of
23 maybe as high as 110,000 or maybe some blend, if you had, you
24 know, a lot of frac water that's only 8,000, maybe it's only --
25 as Renegade said, maybe it's only 60,000 parts per million, but

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1 at least you would have expected to see at least 8,000 parts per
2 million, would you not?

3 A. I would have to go look at the -- if 8,000 was the chloride
4 level of the KCL water, I would expect to see some -- you know,
5 because essentially a lot of what you're doing, you're pushing
6 water -- water is an incompressible fluid, so you're going to be
7 pushing water, essentially fresh water, towards the other well.
8 And some of that water may slip by the formation water, but it's
9 also going to be pushing some formation water with it. So you
10 more than likely have some combination of fresh and salt water.

11 Q. You wouldn't expect to see drinking water standards, you
12 would expect to see something that's at least 8,000 parts per
13 million, assuming what I'm representing to you is correct, that
14 the Newfield engineer is going to say that it was at least as
15 8,000 parts per million, maybe as high as formation water, or
16 some blend of that, maybe not as high as 110,000, but maybe as
17 high as 35 to 60,000 parts per million?

18 A. Well, I think the standards for the OCC is less than 5,000
19 drinking water -- or treatable water.

20 Q. Well, that's treatable water. I'm talking about --

21 A. Drinking water is usually less than a thousand. And so --
22 but you're using fresh -- typically, the companies use
23 fresh water as their base fluid --

24 Q. Let's look at Joint Exhibit 65. I want to go to Page 1
25 initially, and then Page 5. Joint Exhibit 65.

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1 This is the -- one of the exhibits I don't think you had
2 seen back at the time I took your deposition, but you have seen
3 it now, haven't you?

4 A. Yes, sir, I have.

5 MR. MAHAFFEY: Offer Exhibit 65.

6 THE COURT: Is there an objection?

7 MR. MAHAFFEY: I guess we're already -- I didn't need
8 to do that. I apologize, Judge.

9 Q. (By Mr. Mahaffey) Okay. Page 1 shows you that on
10 November 4th, 2016 --

11 THE COURT: Counsel, excuse me for interrupting. So
12 you don't want to introduce the exhibit?

13 MR. MAHAFFEY: I'm sorry. I forgot, Judge, you have
14 already admitted all the joint exhibits, but -- or no, you
15 didn't. But --

16 THE COURT: No, we haven't. We should, that's what I
17 asked you-all about yesterday.

18 MR. MAHAFFEY: I had a senior moment. I do want to
19 offer this. Thank you.

20 THE COURT: This particular exhibit, not all of the
21 joint exhibits, because they wouldn't go back if they --

22 MR. MAHAFFEY: Just the -- I mean, I had already
23 offered, I think, the prior one that we were talking about,
24 Judge, which was Exhibit 69, but I now would offer Exhibit -- I
25 would offer Exhibit 83 also, which we referred to, which was the

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Oklahoma City, OK 73102 * 405.609.5403

1 petition, and 65. Those are joint exhibits.

2 THE COURT: 65 and 85 are the two that you want to --

3 MR. MAHAFFEY: Yeah, 65, 83 and 69.

4 THE COURT: Okay. You added something on. 65, 83 and
5 89?

6 MR. MAHAFFEY: And 69 was the first one. 69.

7 THE COURT: 69, 83, 89?

8 MR. MAHAFFEY: The last one is 65. 69, 83, and this
9 one is 65 we're getting ready to talk about. I apologize. Joint
10 Exhibit 65.

11 THE COURT: Very well. 65 and 83 are the two that
12 you're seeking to admit now, right?

13 MR. MAHAFFEY: That's correct.

14 MR. SINGER: If it's a joint exhibit, we have no
15 objection to the jury seeing it. We'd like for them to see all
16 of them. So no objection, Judge.

17 THE COURT: Very well. 69 and 83 are admitted -- 65
18 and 83 are admitted.

19 MR. MAHAFFEY: But I think you had already admitted 69,
20 so I think we're good there.

21 Q. (By Mr. Mahaffey) This is Page 1 of Exhibit 65. And just
22 tell the jury what we're looking at here.

23 A. Well, it looks like they have six samples that they have
24 named individually. And it gives a sample date and time, and the
25 sample on the far right-hand column said it's water.

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1 Q. And it's water from the Smith well, is it not?

2 A. That's my understanding, yes, sir.

3 Q. And you have seen a swab report. It looks like it was
4 swabbed -- these were taken at various depths out of the Smith
5 well on November 4th, 2016?

6 A. I believe --

7 Q. That's the date that's on there.

8 A. Yeah, I -- but I thought these were the samples from -- from
9 11/16 and 11/17 when they swabbed. So I'm a little bit unsure as
10 to if that date is correct.

11 Q. Well, I think the Renegade -- what's the date you have?

12 A. When they -- when they rigged up to swab it on November 16th
13 and November 17th of 2016, my understanding was that these
14 swabs -- this sample was from fluid collected --

15 Q. Let's go -- let's go -- I don't want there to be
16 any question. Let's go back to --

17 THE COURT: Just a moment, Counsel. Let the witness
18 finish, please.

19 May he finish his response?

20 THE WITNESS: Yeah. I was just saying that I
21 understand the dates on this report, but they -- they don't
22 correlate to the dates of when I thought the samples were
23 actually taken.

24 Q. (By Mr. Mahaffey) I want you to assume that Mr. Turner's
25 going to testify that he reports mistaking that they -- he

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1 actually testified he took the samples on November 4th and 5th.

2 A. Okay.

3 Q. And he's going to testify in this case, is my understanding.

4 A. Okay.

5 Q. And with that clarification, do you agree that these were
6 samples taken approximately a year, or 11 months, after the
7 initial December 2015 claim that Newfield had fracked into the
8 well?

9 A. Yes.

10 Q. And there's nothing else that happened on that well for that
11 time period, there's no -- you have talked with your client, they
12 didn't go back out to the well, or at least they didn't do any
13 other tests or go downhole, nothing happened for that 11 months,
14 it just sat there?

15 A. That's my understanding, yes, sir.

16 Q. And let's look and see the results of these. You can scroll
17 through -- go ahead and show Page 2. I don't think there's
18 anything on Page 2 or 3 or 4, but show the jury what's there.
19 Well, that's Page 5. Okay.

20 Is there any significance to you of all the -- all those
21 zeros there?

22 A. No, sir.

23 Q. Go to Page 5.

24 A. I believe they were looking for some possible tracer
25 materials. Sometimes when you frac a well, the company will put

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1 some signature fluid, some tracer material in the sand or the
2 water so that you can kind of figure out where it goes.

3 Q. They usually do that when they want to do some testing, when
4 they're like -- instead of microseismic, where they want to do
5 and try to come up with an evaluation of kind of where's this
6 going and --

7 A. Yes. So I believe this is what this was looking for was
8 trying to identify if there was any -- any tracer material out
9 there.

10 Q. And you're aware that Newfield did not do that. In fact,
11 their engineers testify we had no plans to test -- you know, to
12 do any tests as well, so we didn't run any tracers. It's just an
13 extra expense, isn't it?

14 A. Yes, sir, it is.

15 Q. Look at the chlorides. The chlorides here are all less than
16 500 parts per million, are they not?

17 A. Yes.

18 Q. And actually, maybe -- I hope Mr. Turner's going to tell you
19 he made a mistake. He actually says those are parts per billion,
20 but that would not be -- it would probably be parts per million,
21 correct?

22 A. Yeah. They -- oftentimes they -- in looking for tracer
23 materials, that is actually measured in parts per billion, but if
24 it's a chloride, it's PPM, parts per million.

25 Q. And you're aware in a lot of places, I know California for

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1 sure, if it's less than 700 parts per million, it's drinkable
2 water?

3 A. Oh, yeah. That's drinkable water right there.

4 Q. If it had some mud in it, might not make you want to drink
5 it, but the chlorides would make it drinkable water, would it
6 not?

7 A. Yes.

8 Q. That is not consistent with either 110,000 parts per million
9 or 8,000 parts per million, which is the type of chlorides you
10 would have expected to see in any water that was pushed into the
11 Smith wellbore by Newfield's frac?

12 A. Actually, it does to me because how else can you -- you
13 can't get fresh water any other way there, because fresh water is
14 your basis for your frac fluid. It will sit there for a year and
15 you're going to have salty water in the bottom, you're going to
16 have fresh water, then you're going to have oil on top. It's
17 going to segregate over a year, like you put it in a bottle.

18 So having that fresh water there, I think, is even more
19 indicative that there was frac fluid, because that's the base
20 fluid that was used to frac the well with.

21 Q. And they swabbed -- they swabbed down to near 6,200 feet.
22 They took a sample down near the bottom of the well, did they
23 not? One of these samples was down near the bottom of the well?

24 A. I don't recall seeing the depths of the samples. That may
25 have -- that may have happened, but I know that they -- I don't

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1 know the -- where the depths of these samples were taken.

2 Q. Well, you do know, as an engineer, there's another way you
3 can get fresh water in a well, you can have a casing leak up
4 somewhere at an area that's in communication with the treatable
5 water zone? That is another way you can get fresh water in your
6 well, is it not?

7 A. Yes. You could have a casing leak. Typically, you have two
8 strings of casing covering the fresh water, so that's -- unless
9 there was some huge event that would have cracked through two
10 strings of casing and cement covering the fresh water. That's
11 typically un -- unlikely.

12 Q. At least as to these elements, the well didn't purge, we
13 don't have chlorides that match up with formation water, or at
14 least with the -- what I'll represent to you will be the
15 testimony about the Newfield frac water. Those would indicate
16 that you may or may not have communication. And you -- in your
17 testimony, you don't know? You don't know if we had
18 communication or not, do you?

19 A. Could you ask me that question again? I want to make sure I
20 answer you --

21 Q. We really do not know -- I mean, no one can see down that --
22 7,500 feet below the ground, and we're trying to use some
23 circumstantial evidence to determine if there was communication.
24 Is that a fair statement?

25 A. I don't know -- I don't know if I would call it

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1 circumstantial, but we know that they found fluid at a -- at a
2 depth, at 500 foot from the surface. Before, you never had fluid
3 and this well was probably more than a hundred feet above -- so
4 that fluid had to come -- had to come in from somewhere.

5 So I think it's more than just circumstantial. There's
6 information there in these well records that indicate that
7 something -- something happened that introduced some pressure and
8 fluid into this wellbore.

9 Q. And the frac itself, the frac is not designed -- or is
10 designed, it's not to injure the Mississippi or Meramec
11 formation, correct?

12 A. I'm sorry?

13 Q. The frac job, it's designed -- the operators are doing it to
14 enhance the Mississippi formation, not to -- not to endanger or
15 damage the formation, correct?

16 A. Yeah. The intent of a fracture, hydraulic fracture is to
17 enhance oil and gas production.

18 Q. So the issue we have here is if there is fluids that got
19 into the wellbore, can those be removed? If there's debris that
20 got in the wellbore, can that be removed?

21 A. It --

22 Q. Isn't that one of the issues we have?

23 A. Yeah, it -- it possibly can.

24 Q. And we're going to explore that. Let's explore another
25 before we get to that.

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1 You have spent a considerable amount -- and the primary
2 reason you were hired and the time you spent primarily is to do
3 an economic evaluation of the well?

4 A. That was the primary consideration. They also asked me for
5 my engineering -- I do have experience -- some of my ideas
6 otherwise, but, yes, it was primarily on the economic side.

7 Q. And in recent years, while you may have some years ago done
8 some operation, that's your primary job today is a -- what we
9 call a reservoir engineer, is it not?

10 A. Yes, sir, that's correct.

11 Q. And you may review as many as 20 wells a week to try to do
12 one of these either economic evaluations or reserve
13 evaluation-type reports?

14 A. I -- well, yeah. I -- I review -- review hundreds or
15 thousands of wells a week that -- combined into several reserve
16 reports. So, yeah, I'm busy doing that all the time. Two or
17 three reserve reports a day or sometimes a week, and thousands of
18 wells I review a week.

19 Q. And, for example, counsel asked you a little bit about
20 plugging. You have not prepared any sort of detailed analysis or
21 cost estimate to plug this well, have you?

22 A. No, sir, I have not.

23 Q. And that's because you do not know and that's not your area
24 of expertise?

25 A. That is not my area of expertise, no, sir. I have got a

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1 long experience, but it's not my area where I'm going to pretend
2 that I'm an expert plugging guy.

3 Q. And also, when you were asked in your deposition about it,
4 you said you don't know?

5 A. That's correct.

6 Q. Okay. Now, let's talk about your economic evaluation. You
7 did not use the conventional market value approach on the Smith
8 well because your client asked you to look at the -- it's the
9 intrinsic value to him, is that why?

10 A. Yes.

11 Q. Okay. But you wouldn't take -- some of the reserve reports
12 you do are for banks, for other oil companies, right?

13 A. Yes.

14 Q. You wouldn't take Mr. -- this intrinsic value to the bank
15 and ask them to loan \$359 million on it or you might be laughed
16 out of the bank.

17 A. \$359,000?

18 Q. You wouldn't take that intrinsic value and try to go to the
19 bank and say that's the value of the well?

20 A. That's correct.

21 Q. You wouldn't take it to the board room and tell your -- your
22 oil company client that that's the value of the well?

23 A. That's -- well, it depends on what -- the conversation, but
24 if they're asking me what the -- on a corporate basis, generally
25 they're dealing with SEC issues, and that's the standard is using

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1 the present value discounted 10 percent. So it would be a lesser
2 value than 359.

3 Q. When you -- you sometimes, in looking at what fair market
4 value is -- and -- and there's other wells out there. I mean, if
5 you could go out and buy another well, let's take your premise of
6 a one-and-a-quarter barrel a day, 30 MCF a day, if you could --
7 with a 3 percent decline, same operating expense, if you could go
8 out and find that type of well, assuming that we have totaled the
9 Smith well, then that would make Singer whole, would it not?

10 A. Well, if -- same is same, yes.

11 Q. Sure. And if -- we'll get back to restoring. If we could
12 restore this well to production, paying him all the --
13 whatever -- paying him whatever it costs to restore it to
14 production, he would have his well back at the same rates, that
15 would make him whole too, would it not?

16 A. Well, depending on the capital costs it would cost to -- who
17 would pay for the capital costs to --

18 Q. Newfield. Newfield pays for -- if -- if the jury finds that
19 we damaged the well, they'd pay for the costs. If Newfield paid
20 for whatever the repair costs were and it could be repaired, back
21 to pre-December 5 --

22 A. If you get back to the same -- same thing, yes.

23 Q. Let's look, though. Your normal method is to do, really not
24 just this economic evaluation, and you alluded to this in your
25 testimony, another method that you use, and that even I think

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1 we're going to hear testimony from Mr. Schuppan that he uses, is
2 you look at, like, four years of net cash flow?

3 A. Yes.

4 Q. If you can come up with an accurate number of the average
5 monthly net revenue, you can take 48 times that, and that's a
6 pretty good estimate -- or an estimate of what market value might
7 be?

8 A. Well, I would say net cash flow after expenses and taxes.
9 Revenues sometimes is only after royalties or after taxes, but
10 I -- make sure you take out the expenses on net cash flow basis.

11 Q. Right. Right.

12 A. Flatter wells can be 48 months, 55 -- 50 months. Shallow --
13 I mean, steeper-declining wells, it may be as little as 30
14 months. But you have to know a little bit about the well before
15 you start applying too many things.

16 Q. And another method that you could use, that you alluded to,
17 you called it a metric, is to look at the daily barrel
18 production --

19 A. Yes.

20 Q. -- the daily MCF production and multiply it times a dollar
21 amount?

22 A. Yes.

23 Q. And at least in the -- the time frame we're talking about,
24 your opinion was if we looked at a daily barrel of oil, \$25,000
25 per daily barrel of oil and \$5,000 per MCF of gas would be a good

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1 number?

2 A. Yeah, on a net basis.

3 Q. On a net basis?

4 A. After you take out your royalties and overrides, yes.

5 Q. That's right, on a net basis. So --

6 A. Those are guidelines. Those are metrics that you use in
7 addition to the -- the typical, normal engineered forecast.
8 Those are great rules of thumb that many companies, smaller
9 companies especially, use in considering when they're making an
10 offer to buy something.

11 Q. And counsel asked you on direct examination about some
12 prior -- recent testimony you gave in another case that involved
13 a -- a claim of frac communication. And that was the -- he said
14 H&S. H&S was the operator of the well that was claiming the
15 damage, were they not?

16 A. Yes.

17 Q. And you came and testified at the trial on behalf of Devon?

18 A. Yes.

19 Q. And you testified in that trial just down the hallway here,
20 just a couple three months ago?

21 A. Yes.

22 Q. And in that -- when you were -- and Devon was claiming
23 either they didn't damage the well or had a different opinion of
24 how much damage they had done. And they hired you to evaluate
25 the -- basically what would be the market value of this H&S

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1 operated Coffey 1-14 well?

2 A. Yes.

3 Q. And the Coffey 1-14 well is a Mississippian well that's a
4 little bit south and west of Kingfisher?

5 A. Yes.

6 Q. Correct? It's -- and let's look at these similarities,
7 since you brought it up.

8 THE WITNESS: Your Honor, could we have a two-minute
9 break?

10 THE COURT: I tell you what, why don't we take a
11 ten-minute break.

12 Ladies and gentlemen of the jury, we're going to take about
13 a ten-minute break. Let me remind you, ladies and gentlemen of
14 the jury, that you should not discuss the case among yourselves
15 or allow anyone to discuss it with you or in your presence. I
16 would also remind you that -- well, just remind you of that.

17 Let's take a ten-minute break.

18 (Break was taken.)

19 (In open court, in the presence of all parties, counsel and
20 the jury.)

21 THE COURT: Counsel, you may resume your examination.

22 Q. (By Mr. Mahaffey) Mr. Dick, before the break we were
23 getting ready to talk about the Coffey 1-14 well that you brought
24 up during your direct testimony, about another incident you had
25 testified for the other side, Devon.

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1 I have put up here on the easel board just those two well
2 names. But the alleged communication on the Coffey happened
3 August 15, 2015, did it not?

4 A. I think that's right.

5 Q. And here you used in your economic analysis that the --
6 December 1, 2015, for the Smith well?

7 A. Yes.

8 Q. And by the way, the Coffey well, like the Smith well, is on
9 a plunger lift, wasn't it?

10 A. Yes.

11 Q. Okay. Had that similarity.

12 Now, you had opined that -- I think that well may have had
13 about the same, maybe even shallower, 2-and-a-half to 3 percent
14 decline rate. Pretty shallow decline rate, did it not?

15 A. Maybe 2.9. It was pretty similar.

16 Q. Here you have 3 percent?

17 A. Yeah. I was a little harder on this well.

18 Q. And if you need to see this to refresh your memory, I can
19 give it to you. But you opined there that -- I'm going to use an
20 acronym of RR0 for remaining recoverable oil and RRG for
21 remaining recoverable gas, if that's accept with you.

22 A. Yes.

23 MR. MAHAFFEY: And just to refresh his memory, why
24 don't we pull up Defendant's Exhibit 4, Page 7 -- that was his --
25 your economic projection -- for Mr. Dick to see.

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Oklahoma City, OK 73102 * 405.609.5403

1 And, Judge, I was going to use this as -- to refresh his
2 memory as a demonstrative, but if I need to offer it, I would
3 offer it.

4 MR. SINGER: I'm not following. Does this relate to
5 the H&S case or to our case?

6 MR. MAHAFFEY: This relates to his economic -- yeah,
7 his evaluation of the well that you brought up on direct, the
8 Coffey well. I'm comparing it to how he contrasted with the
9 Smith well.

10 MR. SINGER: Judge, I'll object to the introduction of
11 documents that weren't discussed or shared prior. If that's
12 something that -- I don't really know what it is, but if it's
13 something that he shared prior, no problems.

14 THE COURT: Well, only you two gentlemen can ascertain
15 that.

16 MR. SINGER: Is it something that --

17 MR. MAHAFFEY: Yeah, it's something we went into -- he
18 went on his deposition. And it has the -- and counsel brought it
19 up on direct, that's why I'm going -- he brought up his testimony
20 in that case, and it goes to also using the different methodology
21 that he's using here.

22 MR. SINGER: If Your Honor please, on general
23 principle, I will object because I have never seen the document.

24 MR. MAHAFFEY: It was an exhibit to the deposition,
25 Judge.

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1 MR. SINGER: Oh, then make it clear. Make it clear.
2 If it was an exhibit to the deposition, I don't have a problem
3 with it.

4 MR. MAHAFFEY: Thank you.

5 THE COURT: What's the exhibit number for purposes
6 of --

7 MR. MAHAFFEY: It's Defendant's Exhibit 4.

8 THE COURT: Is there an objection, Counsel?

9 MR. SINGER: No, I guess not, Judge. Thank you.

10 THE COURT: Admitted.

11 MR. MAHAFFEY: Let's look at Page 7, if we could, of
12 Defendant's Exhibit 4.

13 All right. Would you highlight the line that's totaled
14 there just right near your arrow? Could you get that part right
15 there, right below the line, all the way across?

16 Q. (By Mr. Mahaffey) Okay. Where you have total there,
17 Mr. Dick, the bolded number, the 10.17, that's what you're
18 showing to be the remaining recoverable oil of 10,170 barrels, is
19 it not?

20 A. Yes.

21 Q. And the number right next to that, 201.95, that's what
22 you're showing for the Coffey well to be the remaining gas, which
23 would be -- we have to multiply those by a thousand -- would be
24 201,950 MCF, correct?

25 A. Yes.

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1 Q. And there, if we go over to the next-to-the-last bolded
2 number, we see a 514.31.

3 MR. SINGER: If Your Honor please, I question the
4 relevance of this deep and detailed inquiry into some other well
5 that's not really related to this case. I don't have an
6 objection conceptually with him talking about the H&S case and
7 other prior testimony, but to bore down in such detail does not
8 seem relevant.

9 MR. MAHAFFEY: It's very relevant, Judge. It's the
10 same type of economic Evaluation that he's made and offered --
11 his basis of opinion here with 359. If I'm permitted to go
12 forward, I think Mr. Dick is going to acknowledge that he did not
13 use the same parameters now that he used when he was representing
14 Devon in this case that involved a very similar well. So it goes
15 to the credibility of his methodology and what is the -- what is
16 the correct methodology to use.

17 MR. SINGER: If Your Honor please, if that really is
18 his intent, then I would simply question whether this is the way
19 to get to it, going through all this detail. Why not just ask
20 directly, just direct. That would be my position, Judge.

21 MR. MAHAFFEY: Well, this is cross-examination. I'm
22 not going -- I'm going through some very specific numbers. I
23 have cut this down to the meat of the coconut, I promise you,
24 Judge.

25 THE COURT: I'll let him proceed as he is proceeding.

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1 Q. (By Mr. Mahaffey) Your future cash flow was -- that's for
2 50 years. We looked at the very first line, it says total 50,
3 that's for 50 years, is \$514,310. That was the discounted future
4 net cash flow for that well?

5 A. No, that's the undiscounted.

6 Q. I'm sorry. Thank you. I misspoke. The undiscounted future
7 cash flow.

8 A. Yes. That's combining projected volumes and prices and
9 expenses and everything it says in -- the rest of the life of
10 that well would make that much, \$514,000.

11 Q. And there, when you were representing Devon and to the
12 extent that the -- they wanted a number for the market value, the
13 value of the well, you opined that the -- what's called the PW
14 15 percent -- can we highlight that PW 15 percent at the bottom
15 there -- that's the present worth at a 15 percent discount of
16 \$110,310?

17 A. Yes.

18 Q. All right. Let's compare that to what you did in this case.

19 MR. MAHAFFEY: Could we take that off the screen and
20 pull up the economic projection that he has on his report? Do we
21 have that loaded up?

22 Let me just save time. If you don't have that, I'll just do
23 it this way.

24 Q. (By Mr. Mahaffey) In your -- for your Smith well here, you
25 came up, for the 50-year expected future oil, 9,880 barrels of

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1 oil, roughly 2 or 300 barrels less than what the Coffey was going
2 to make, correct?

3 A. I'm -- I'm going to verify that in just a second.

4 Q. Sure. Take your time.

5 A. Yes, 9,880 barrels of oil and 272 million cubic feet of gas,
6 272.21.

7 Q. I'm not a very good artist.

8 Okay. On the same line. So the Smith well might have 300
9 barrels less over its remaining projected life, what you -- if
10 all these assumptions we're going to talk about, they have no
11 mechanical problems, the prices don't go down dramatically,
12 something like that, that's what you project that well is going
13 to make versus the Smith. And the Smith well is going to make a
14 little bit more gas, about 70,000 MCF more gas in its lifetime
15 for 50 years than the Coffey?

16 A. Yes.

17 Q. And there the undiscounted cash flow that you have already
18 testified to, which I -- am I on the right line -- the
19 undiscounted cash flow you came up with on the Smith was
20 \$693,530?

21 A. Undiscounted cash flow, yes, sir.

22 Q. Okay. There, if you had done the same analysis as you did
23 for Devon and testified down the hallway a couple of months ago
24 for the market value of the well, the number you would have used
25 instead of the 359,000 you testified to is \$169,770, is it not?

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Oklahoma City, OK 73102 * 405.609.5403

1 A. Yes.

2 Q. But even that number is not comparable to the Coffey because
3 you did a couple of things in your Coffey evaluation that you
4 didn't do in your Smith evaluation, such as lease operating
5 expenses. You customarily escalate lease operating expenses
6 and -- and you didn't do that in the Smith well, you kept them
7 flat?

8 A. Yeah, that was negligible. That would have been a couple
9 hundred bucks. But, no, I failed -- I forgot to escalate my
10 operating expenses for five years.

11 Q. Well, let's look and see how negligible it is. But let's
12 first of all make the point, what you paid for an oil change ten
13 years ago or a hair cut ten years ago ain't what you pay today,
14 is it?

15 A. Mine is because I have got less hair, but --

16 Q. I wasn't trying to be personal.

17 Let's use something else. You know, pumpers, for example.
18 I think Mr. Schuppan, his pumpers charged \$300 a month. I mean,
19 it wasn't that long ago the pumpers were only getting 125, \$150 a
20 month.

21 A. Typically, if you go by the COPAS or the customary, for the
22 most years, expenses increase 2 percent to 3 percent a year
23 annual, except for a few years in history where it's gone down,
24 but typically 2 or 3 percent.

25 Q. And that's what you did in the Coffey, you escalated the

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Oklahoma City, OK 73102 * 405.609.5403

1 customary 3 percent a year for five years and then held it flat
2 for the remaining 45 years?

3 A. Yes.

4 Q. And that is not a small number. If you do that here, the --
5 we take issue with it, but let's use your number. The number you
6 used for annual operating expenses for the Singer well was
7 \$4,880, is it not? Go to that same page you're looking on under
8 cost and you show \$4,880 a year.

9 A. Yes, it is.

10 Q. 4,880.

11 A. 880. Yeah, I thought you said 4,080. I'm sorry.

12 Q. Take 3 percent of that, please. What -- do you need the
13 calculator back?

14 A. Well, 3 percent would be 12 bucks. You're going about 60,
15 70 bucks over five years.

16 Q. Isn't 3 percent going to be more like \$172?

17 A. We're about to find out.

18 Q. Take 3 percent of 4,880.

19 Can you just, first of all, tell us what 3 percent is of
20 \$4,880, Mr. Dick?

21 A. I'm not sure I'm using this right. Give me a second,
22 Mr. Mahaffey.

23 Maybe I left -- let me bring my calculator in --

24 Q. See what my note says --

25 A. Well, 10 percent would be 480, so 3 percent would be --

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Oklahoma City, OK 73102 * 405.609.5403

1 Q. About a third of that?

2 A. -- be about a third of that, so 150 bucks.

3 Q. I come up with -- I come up exactly with \$146.40 is 3
4 percent of 4,880. Is that --

5 A. Yeah, sounds about right.

6 Q. But you're going to do that each year for five years. So
7 after -- on the fifth year, let's take that times five, you have
8 escalated the cost of \$732 a year, have you not?

9 A. That sounds high to me.

10 Q. If you did the same escalation that you did -- that you
11 normally do by escalating it 3 percent a year for the first five
12 years, that's going to add \$146 a year to the lease operating
13 expenses. So year one is 146, year two is going to be 292, year
14 four is going to be double that. It's going to be -- well, 292,
15 if you go up 3 percent a year for four years, isn't it four times
16 \$146? It would actually be slightly more, because in your
17 program you add the -- you compounded -- you add the \$146 to your
18 one and take 3 percent of that number, do you not, in your
19 program?

20 A. What the program does is it escalates on an annual basis.
21 So if it's \$1, then the next year it's 1.03, and then the next
22 year it's going to be 1.03 times 1.03, and that way. So if
23 you'll just give me just a second --

24 Q. I'm just keeping it simple. Is it not true that in the
25 fifth year we will have escalated it five times 146 to \$732?

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1 A. No, I don't think that's correct. But if you'll give me
2 just a second, I'll do the calculation, we'll talk about it.

3 Q. Okay. Why don't you take a second and do that. This is
4 important for the jury.

5 A. Okay. Sorry about the delay.

6 Q. Okay. Have you confirmed that if you escalate at 3 percent
7 a year for five years, after year one it would go -- it's up \$146
8 on an annual basis, but by year five we're up to \$732?

9 A. No, it's not -- it's not that.

10 Okay. So you start off at \$408 a month.

11 Q. I'm on an annual basis. Let's keep it annual basis, your
12 annual operating expenses is \$4,880. What is 3 percent of
13 \$4,880?

14 A. So the next year --

15 Q. Can you answer the question first, what's 3 percent of
16 \$4,880?

17 A. \$146.40.

18 Q. So if you had used the same methodology you used on the
19 Coffey in year two, you would have added -- your annual operating
20 expense, lease expense would not have been 4,880, it would have
21 been 4,880 plus \$146, would it not?

22 A. It would be 4,880 --

23 Q. Plus 146?

24 A. -- times 1.03. It would be \$5,026.40.

25 Q. And then the next year it's going to increase another

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1 approximately \$146, is it not?

2 A. Times -- okay. So times 1.03, is going to be \$5,177.20.

3 Q. So it's actually a little bit more than \$146 increase in
4 year two.

5 Year three it's going to increase approximately another
6 \$150, is it not?

7 A. Going to be \$5,332.51.

8 Q. And year four it's going to go up another approximately
9 \$150, isn't it?

10 A. To \$5,492.48.

11 Q. And then in year six -- I mean, year five, if you go up to
12 the fifth year and cap it at year five, what would be --

13 A. That's where it stopped.

14 Q. What's that?

15 A. That's where it stops, five years. That's the fifth year.

16 Q. Thought we just did four years. That's the fourth year. Do
17 it --

18 A. That's -- okay. That's fine.

19 Q. That's what you did in the Coffey. Let's do the same as the
20 Coffey, go five years.

21 What's that number?

22 A. Just a second. \$5,612.73.

23 Q. Can we just round it to a whole number? Can we call it
24 5,613?

25 A. 5,613.

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1 Q. Okay. What is 5,613 minus 4,880?

2 A. \$733.

3 Q. Okay. Now, let's point out to the jury what the
4 significance of that is.

5 A. Now, that's on a yearly basis.

6 Q. I understand. If you'll let me ask the question, we'll move
7 this along, Mr. Dick.

8 A. I'm sorry.

9 Q. What that means, in your economic run, is if you had
10 escalated it 3 percent like you normally do, and did in the
11 Coffey, for that first five years we can actually take, can we
12 not, 733 divided by five -- I mean, pardon me. That's not right.

13 Take the 733, which is the difference there, divide it by
14 two times five. I mean, your average increase was half -- half
15 of that number over that five-year period. You're increasing it
16 \$146 the first year, 292 the next year, plus 146 -- anyway, on up
17 to 733, correct?

18 A. Yes.

19 Q. I'm trying to short circuit and not have you go through any
20 arithmetic. But isn't the total escalation of at least operating
21 expenses for that first five years roughly \$1,832?

22 A. Okay. I don't know where you're getting 1,832 now.

23 Q. Do you want me -- I'll do it the slow way. Do you want to
24 go do the arithmetic? Take the first year minus 4,880 and it's
25 \$146.50, is it not?

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1 A. Yes.

2 Q. Take your second year number minus 4,880 and it's roughly
3 \$292, is it not?

4 A. Well, we have already said it goes up \$733. I'm not sure
5 how you --

6 Q. After five years.

7 A. -- 733 up to 1,800.

8 Q. I want to know what the total difference is from year one to
9 year five. And for that cumulative, would it not be about \$1,800
10 total difference for the first five years in lease operating
11 expense?

12 A. Oh, the total -- yeah, 1,800 bucks, yes.

13 Q. Now, let's talk about the big number.

14 THE COURT: Excuse me, Counsel. We're going to stop
15 here because our day is getting even more compressed. What we're
16 going to do is break for lunch until 12:15. We'll -- I'm sorry.
17 Break for lunch now, at 12:30. And we will -- the jury will have
18 an hour for lunch.

19 So we will resume -- it's 11:30. We'll resume at -- it's
20 right? We'll resume at 1:30 and we will work from 1:30 to 4:30
21 because of some work that's going on in the courthouse. We need
22 to -- we're going to move -- we're moving up another case, a
23 criminal case, which certainly takes priority. You take priority
24 too, because you're part of this jury.

25 So we will work -- we just lost a colleague's father, so I'm

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1 not real steady.

2 I'll see you at 1:15 and we'll work -- I keep saying 1:15.
3 12:30 to 1:30 lunch and then we'll work until 4:30 because we
4 have a criminal matter that we must take care of because we're
5 closed on tomorrow.

6 Let me remind you that during the break you should not
7 discuss the case among yourselves or allow anyone to discuss it
8 with you or in your presence. I would also remind you that you
9 should not form any opinion about the case until you retire to
10 the jury room to deliberate on your verdict. Enjoy your lunch.

11 We'll be in recess.

12 (Lunch break was taken.)

13 THE COURT: Counsel, I understand --

14 MR. MAHAFFEY: Your Honor, it's come to my attention, I
15 have seen it, and my partner reported it more than I have,
16 Mr. Schuppan seems to be distracting the jury, making head shakes
17 and, you know -- you know, kind of cheering the witness on. I
18 tried to have a conversation with Mr. Singer out in the hall,
19 asking him to admonish him. He told me to take it up with the
20 judge, so I'm taking it up with you.

21 It's become distracting, I think to the jury, for
22 Mr. Schuppan to put so much motion into what's going on. But
23 that's my request is that he be admonished and not gesticulate as
24 much as he is. And sometimes I can hear him, he'll make
25 verbal -- you know, that's not right, or that's wrong or, you

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1 know -- you know --

2 THE COURT: What do you say?

3 MR. SINGER: Well, if Your Honor please, I'm sitting
4 next to him and I didn't notice it. His head is sitting next to
5 these guys and -- I haven't understood that you have noticed or
6 any court officials have noticed him misbehaving. I don't think
7 he's misbehaving.

8 I would state for the record that after Mr. Mahaffey scolded
9 me for the conduct of my client, I went and talked to him in a
10 serious fashion and told him about courtroom decorum. He denied
11 doing anything on purpose, but he has been admonished. If you
12 would like to admonish him as well, that's perfectly acceptable.

13 MR. MAHAFFEY: I didn't want to bother the judge,
14 that's why I came to the -- the other thing, I understand, Judge,
15 is we may have a scheduling issue. And I don't know how you want
16 to handle that, but Buzz Goodwin is a colleague too. I may go to
17 the funeral Monday. I understand you may be going.

18 THE COURT: I'm definitely going.

19 MR. MAHAFFEY: The only other thing -- I didn't imagine
20 -- in my wildest dreams imagine this trial would have continued
21 on past Monday, but I have some knee surgery scheduled Tuesday
22 morning. These orthopedics are hard to get in -- Southwest
23 Orthopedic, it's arthroscopic, he said it would probably be --

24 THE COURT: Don't say --

25 MR. SINGER: You'll be in tremendous pain.

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1 MR. MAHAFFEY: Well, anyway, I don't know if -- how
2 we -- I mean, either I have to cancel that or my other -- if
3 we're going to finish up Monday afternoon. If we don't finish
4 next --

5 THE COURT: Can you have what -- I mean, the medical
6 condition -- I mean situations rise.

7 MR. MAHAFFEY: I'm going -- I'll talk to Dr. --
8 Dr. Blevins is my name -- is my surgeon, and I'll ask him, but he
9 had told me that I'll walk out after the surgery and --

10 MR. SINGER: You think you'll be able to try a lawsuit
11 the next day? And if you are, props, man, I'm impressed.

12 MR. MAHAFFEY: Well, I think so, but I'll double check.
13 He didn't --

14 THE COURT: But you'll be able to -- the doctor's
15 office will probably be open tomorrow, so you --

16 MR. MAHAFFEY: Yes. I am going in tomorrow. I have to
17 do some presurgery testing tomorrow. I have to do some
18 presurgery testing --

19 THE COURT: I can't go to the funeral and get back with
20 any, you know, good time to do anything, so --

21 MR. MAHAFFEY: I'll report to you Monday morning or --

22 THE COURT: Why don't you check and see, but for me
23 your health condition is --

24 MR. MAHAFFEY: Well, thank you.

25 THE COURT: -- is way up here.

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1 MR. SINGER: So are we talking about possibly working
2 on Monday, skipping Tuesday, and working on Wednesday?

3 MR. MAHAFFEY: That's fine too.

4 THE COURT: I want him to be able to get through before
5 he goes, because we thought that -- what, we thought that we were
6 going to finish, what, initially -- I don't think we ever thought
7 we were going to finish today.

8 MS. FAGAN: No, at least I didn't.

9 MR. MAHAFFEY: I don't think a half a day Monday --

10 MS. FAGAN: I was going to say, the funeral's Monday
11 afternoon.

12 MR. SINGER: So the Court is closed on Monday, correct?

13 MS. FAGAN: Well, would we work Monday morning?

14 MR. MAHAFFEY: That's fine, if you want to do that.

15 MS. FAGAN: I mean, it's two and a half hours.

16 THE COURT: I want to see what the doctor said. The
17 doctor's appointment is way up here for me, and if he says come
18 on in Wednesday and let's do it, you know, arguably we'll be
19 through or -- we'll be through by Tuesday.

20 MS. FAGAN: It's Tuesday, right?

21 MR. MAHAFFEY: Well, maybe -- I'll see if I can
22 reschedule it Wednesday or Thursday. I have been putting it off
23 a long time, because I'm in a lot of pain right now.

24 MR. SINGER: You may not want to address this at the
25 moment, but may I bring up one of my concerns? I have got this

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1 witness that I have sponsored that's almost cross-examined. I
2 have another guy from Tulsa that's going to testify next.
3 Because of -- and I know this isn't necessarily your problem,
4 it's more my problem --

5 THE COURT: No. All the problems are my problems.
6 Okay?

7 MR. SINGER: He's booked -- he's double booked. He can
8 today. We wonder if maybe if we have to, if his cross examine
9 goes a little overtime, can we maybe stay a little late to try to
10 finish it? We may not.

11 THE COURT: Lori?

12 MS. FAGAN: They're doing some sort of server
13 maintenance and at 5 o'clock power on this side of the building
14 is gone.

15 MR. SINGER: Understood. I can give you that report.
16 D&R, the court reporting people, say by 3 o'clock I will have
17 DVDs, but I will not have looked at them and those guys won't
18 have looked at them either. I don't know if you feel
19 comfortable.

20 MR. SMITH: I would assume if it's with your
21 designations.

22 MR. SINGER: Right, but it's a third party, you know.
23 Bruce may have made a mistake or something. We --

24 MR. SMITH: If you're going to have them --

25 (Discussion held off the record.)

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1 THE COURT: I think we want to work as quickly as
2 possible so he can finish so he can go and do that -- do the
3 medical situation he has.

4 MR. MAHAFFEY: What I might try to do is see if I can
5 reschedule my surgery.

6 THE COURT: But not way far out, because he's not going
7 to think that's funny. He's not going to be happy with you, and
8 you're not going to be happy either until you get your knee
9 fixed. And you're going to give Lori's number -- she can give
10 you my number.

11 (In the presence of the jury:)

12 THE COURT: Mr. Mahaffey, you're recognized.

13 Q. (By Mr. Mahaffey) Mr. Dick, before the lunch recess, we
14 were looking at the effect of escalating your expenses, like you
15 did in the Coffey case, and what you normally do would have on
16 your opinion you gave to this jury of the value of the Smith well
17 that was totalled. And I think where we left off was we
18 determined that based on the data your client had given you of
19 \$4,880 a year expenses, which you held -- for your economic
20 valuation you held that flat for all 50 years, did you not?

21 A. Yes.

22 Q. That if you had done it the normal methodology, like you did
23 in the Coffey, the first five years it would have increased
24 roughly \$146 a year, the expenses?

25 A. Yes.

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1 Q. And that number -- or that total would be \$1,832 for that
2 five-year period, would it not?

3 A. Well, quite frankly, I think I came up with \$2,197 for that
4 five-year period.

5 Q. You got more than that? Okay. Well --

6 A. Yeah, I hate to admit --

7 Q. What's your number?

8 A. Well, the 146 with 297, the 452, the 569 and the 733, and I
9 came up with \$2,197.

10 Q. I like that better.

11 A. I figured you would.

12 Q. Okay. Now, let's talk about the big effect, though. This
13 here has a 50-year life per your economic evaluation, does it
14 not?

15 A. (Witness nodded).

16 Q. That -- that's -- you shook your head. That's a yes, is it
17 not?

18 A. Yes.

19 Q. That \$733 is going to have to be added to each year six
20 through 50, is it not?

21 A. For 45 years, be --

22 Q. What is 45 times \$733?

23 A. 32,985.

24 Q. So instead of having what you had for the 50-year period of
25 \$244,200, if we added -- and that's what you came up with holding

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1 it flat, is it not, \$244,200?

2 A. Yes, sir.

3 Q. We would have to add, if we escalated it 3 percent per year
4 for the first five years, \$35,172, which would bring us up to
5 around \$290,000 in expenses, would it not?

6 A. Yeah. I got --

7 Q. 289 and some change?

8 A. Yeah, that -- yes.

9 Q. All right. Now, that comes -- now that we have that number,
10 35,000 --

11 A. Well, but 279 and some change.

12 Q. Okay. Let's show the jury what effect that has on the
13 economic evaluation. Instead of having future undiscounted cash
14 flow of 693,530, you're going to have to reduce that by 35,172,
15 are you not?

16 A. Yes, sir.

17 Q. And what's that new number going to be?

18 A. 658,358.

19 Q. And if we look at a present worth 15, like you did on the
20 Coffey well in the Devon trial, instead of that number being
21 169,770 -- I'm going to have to have you do the calculation,
22 because I have -- but it's going to be about 161,000, is it not?

23 And to make that calculation, I know you have a program that
24 would do it, but we can just take the former numbers of 169 over
25 770 and divide 693,530, and that gives us a ratio of about

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1 24.479, does it not?

2 A. That's about right.

3 Q. And then if we multiplied that times the new number of 658?

4 A. It would be in the 161,000, 162,000 range.

5 Q. Did you say 161,159?

6 A. No, I didn't. I said it was in that range of around 161 to
7 162,000. I haven't done that calculation all the way yet.

8 Q. I think you got it too low. Wouldn't it be more like
9 161,000?

10 A. It could be, yeah. If you give me a second, I'll do that
11 calculation real quick.

12 Yes.

13 Q. Okay. So that's the effect of just the one difference on
14 the operating expense, but let's look at something else. The
15 economic projection you gave, and when you gave your number, was
16 200 -- 100 percent of the well, was it not? And Mr. Singer
17 doesn't own 100 percent of this well. There's three other
18 partners that own about 3.125 percent that aren't suing Newfield.
19 You're aware --

20 A. That may be correct. I was asked to run it 100 percent.

21 Q. Okay. Let's look, because you used a net revenue of
22 78.124 percent. That's the net revenue after deducting out
23 royalties and overrides, it's not what he owns after deducting
24 out the other 3.125 percent, is it?

25 A. I don't know.

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1 Q. Well, I think you do know. Go back -- do you have your
2 report there?

3 A. I may. I do.

4 Q. Why don't you go to Page 3 of the report, and the last three
5 lines at the bottom. And you recognize, do you not, that he only
6 owns 90?

7 A. Yeah, I was asked to run it at 100 percent, but you're
8 right, he owns 96. -- or Singer has a 96.875 percent working with
9 a 75.68359 percent net.

10 Q. So if we're really going to compare apples and apples, let's
11 take -- let's take the correct number. Let's take 96.875 percent
12 of that --

13 A. We're still on the Coffey well, right?

14 Q. No, we're talking about the Smith well. The number's not
15 going to be 161,159. If you were looking at it -- using your
16 other assumption I'm not going to dispute right now, your oil and
17 gas -- we're going to talk about that next, but using your other
18 assumptions, if we use the correct ownership, isn't it going to
19 be about 96 percent, 97 percent of that number?

20 A. Yes. I got 156,096.

21 Q. 156 --

22 A. 96,096.

23 Q. So using the methodology -- the economic evaluation
24 methodology that you used when you were defending -- or working
25 for Devon in the Coffey case and correcting it for escalation of

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1 expenses, the expenses you assumed, and correcting it for the
2 right working interest, the number is 156,096 with a PV15?

3 A. And if you took it to auction and tried to sell it --

4 MR. MAHAFFEY: Objection; Your Honor. That's not
5 responsive. My only question was was that what the answer would
6 be looking at his economic summary on PV15. That's a yes or no
7 answer.

8 MR. SINGER: Judge, one of our guiding principles is to
9 let the witness speak. And he was trying to make a
10 clarification. You can't cut him off. You ask a question, you
11 get your answer. He needs to let the answer be.

12 MR. MAHAFFEY: But it was -- he wasn't being
13 responsive, Your Honor. I don't know how to handle that, but
14 it's not being responsive. I'm making my objection. It was a
15 simple yes or no question whether that would be the correct
16 number under his economic model for P -- present worth at
17 15 percent.

18 THE COURT: And what did he respond -- to what did
19 he --

20 MR. MAHAFFEY: He started going on a diatribe about
21 well, you know, some -- trying to justify that as opposed to why
22 he used the -- Mr. Schuppan's requested intrinsic value model
23 instead of going with the market value model, but that wasn't my
24 question. I'm sure counsel will give him a chance to try to
25 defend that position, but right now it was just trying to come up

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1 with a simple yes or no answer, would that not be the correct
2 number using his other assumptions for a present worth
3 15 percent, which is the same -- the same recommendation he made
4 in the Devon trial a couple of months ago.

5 MR. SINGER: Number one, hardly a diatribe; number two,
6 this is a search for the truth. This expert witness is
7 responding to a question. Now, maybe it's not the response that
8 he wanted, but it is a response. We would ask that he be allowed
9 to speak.

10 THE COURT: I'm going to let him answer the question,
11 and your objection is noted, Mr. Mahaffey.

12 Q. (By Mr. Mahaffey) Can you answer my question first of all,
13 whether or not --

14 THE COURT: Well, let him -- let's do that one first.

15 THE WITNESS: The answer is, yes, that would be the
16 calculated number using the method I did for Devon in the way
17 they asked me to look at the evaluation.

18 Q. (By Mr. Mahaffey) Okay. But there's some other assumptions
19 here. In coming up with your -- these numbers, even the 156,000,
20 you assumed an average rate of one and a quarter barrel a day and
21 30 MCF a day, did you not, as a starting rate?

22 A. I think that was the average rate that I calculated at
23 around the time -- within the last few months before the --
24 December 1.

25 Q. Well, let's look at the last few months before December 1.

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1 Did you look at the gauge reports to see how much oil was
2 actually produced in the last couple of months before December 1?

3 A. Yes.

4 Q. Let's do that real quick. I would like to look at Joint
5 Exhibit 52, if we could, Page SOC2710.

6 All right. It says, Fieldvisor, production details, but you
7 recognize this -- it's not the right page. First of all, we want
8 2710. There we go. Can we blow it up a little more or is that
9 as much as we can get it?

10 Okay. Does this not show us oil production? There's two
11 tanks out there, a Tank 1 and a Tank 2, correct?

12 A. I believe that's correct.

13 Q. And the -- can I point on here -- you're aware that this
14 well was shut in for some reason for a few days in mid October?

15 A. Yeah, I believe it was a pipeline issue.

16 Q. Okay. But -- and you can tell that -- that it was back
17 online by October 23rd, can you not, because there's a -- in the
18 one -- can you highlight, Daniel, the third column from the
19 right? Third column from the right, please? Thank you.

20 This Tank 2 is the tank that they started -- we see up there
21 on October 2nd, October 16th, there's 54.6 barrels in that tank,
22 isn't there? Nothing going into that tank back in early October,
23 it's just this constant 54.6?

24 A. Yes.

25 Q. And then for the first time starting October 23rd, we see --

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1 we have a gap there from the 16th to the 23rd, but over that week
2 it's however many barrels went in, it goes up to 60.12, does it
3 not?

4 A. Yes.

5 Q. And if we follow that on down as of November 13th -- and
6 let's -- correspondingly, it looks like a tank of oil was sold
7 right there at the end of October out of Tank 1 because they
8 pulled down that tank from 220 barrels to 46.76 barrels as of
9 October 30th, did they not?

10 A. Yes.

11 Q. I'll highlight -- highlight the one just below that.

12 All right. Now, going over back over to the Tank 2 column,
13 if you go down to the last entry there on the bottom, it's 70.14
14 barrels, it started at 54.6 and as of November 13th it's got up
15 to 71.14 barrels in that tank, has it not?

16 A. Yes.

17 Q. Let's go to the next page, please, Page 8. And blow this up
18 and look at -- and highlight the third column from the right.
19 Can we highlight the third column from the right?

20 We go down to -- December 4th is the last date before the
21 Newfield well allegedly impacted and communicated with the Smith
22 well, is it not?

23 A. Yes.

24 Q. And there that rate is 86.01 -- 86.01 barrels in that tank?

25 A. Yes.

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1 Q. Okay. So if we subtract the starting rate from that, which
2 the 54.69, doesn't that mean for that time period, from
3 October 23rd through December 4th, those last 42 days before we
4 allegedly damaged the well, that there was 31.32 barrels
5 produced?

6 A. I believe that's right.

7 Q. Divide that by 42 and tell me what --

8 A. .7, .8.

9 Q. That's exactly .745, about three-quarters of a barrel, is it
10 not?

11 A. Yes.

12 Q. So at least for that 42-day period, the oil rate was not
13 one-and-a-quarter barrel, but about three-quarters a barrel?

14 A. And we had some -- and I believe there were some -- I'll
15 answer your question. Yes, that's correct.

16 Q. Let's look at the gas. I would like to pull up, I think
17 it's on that same exhibit, gentlemen, it's SOC2722, the
18 November 2015 statement. Can we go look at the gas? 2722.

19 Judge, while he's pulling that up, I would go ahead and
20 offer Joint Exhibit 52.

21 THE COURT: Is there an objection?

22 MR. SINGER: No objections to Joint Exhibits, Your
23 Honor. Thank you.

24 THE COURT: Very well. Admitted.

25 Q. (By Mr. Mahaffey) Do you have the November gas statement in

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1 front of you?

2 A. I don't.

3 Q. Do you know --

4 A. I do now, I have got a --

5 Q. There it is. Thank you. Is that it? That's not the one
6 that I need. 2722. I think that's the one from October. Is
7 there other pages in this?

8 THE COURT: Is that Exhibit 53, Counsel?

9 MR. MAHAFFEY: I apologize, Your Honor. My technology
10 is not -- I'm not getting there.

11 Q. (By Mr. Mahaffey) Go to, please, Joint Exhibit 53 and go to
12 page SOC2722, please.

13 Do you recognize that as the gas statement for the -- the
14 production month -- if you'll go up to the top line up there of
15 the text where it says Crescent Gas Plant, it shows the first --
16 second column shows production date and it says November 2015,
17 does it not?

18 A. Yes.

19 Q. You would understand that would be for the 30-day period of
20 the month of November?

21 A. Yes.

22 Q. Okay. Now, flip back, if we could, Daniel, back to the big
23 screen and go to the left side over on wellhead information. The
24 first line gives us the MCF that was produced -- it says 595.3,
25 does it not?

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1 A. 595.3.

2 Q. I'm sorry. What did I say? That's what I meant to say,
3 595.3.

4 A. Yes, sir.

5 Q. Heating value was higher in that, but that's the MCF of gas,
6 correct?

7 A. Yeah. The MMBTUs was higher at 739.3.

8 Q. For a 30-day month, what is the -- if you assume it was
9 online every day, and we don't have any reason to believe from
10 the gauge reports it wasn't, do we? We think it was online every
11 day in November?

12 A. I don't think it was producing as it normally had, but it
13 may be -- I don't have any reason to believe it wasn't on most
14 all days.

15 Q. You have no evidence that there was any restriction of the
16 rate that that well was producing during November of 2015, do
17 you?

18 A. You'll be cross-examining the operator of the well. He has
19 indicated to me that they had some issues with some leaks around
20 the wellhead that they were fixing, that they were still lining
21 out the plunger lift from it being down a few days in October at
22 the same time in November. So there was -- there was some -- I
23 don't think it was producing at its normal peak capacity in that
24 these two months were anomalous to the rest of the nine months of
25 the year of 2015. So --

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1 Q. For the month, though -- at 595 MCF for the month, what does
2 that work out to be on a daily average?

3 A. 19.83.

4 Q. We can round that just to 20 MCF a day, can we not?

5 A. Yes, sir.

6 Q. If, in fact, of using a starting rate on your economic
7 evaluation of three-quarters of a barrel a day instead of 1.25
8 barrels a day, and 20 MCF a day instead of 30 MCF a day, your PV,
9 present worth 15 percent number would have been significantly
10 less than 156,000 that we have up on the easel, would it not?

11 A. Well, I wouldn't have used those numbers, but if -- if
12 someone were to use those numbers in my economics, they would get
13 to much lower value than I did.

14 Q. And that's part of the drill that you engineer -- I mean,
15 you engineers are supposed to be really impartial. You're not
16 really supposed to be taking a side in these cases, are you?

17 A. No.

18 Q. You're supposed to try to report what you think the numbers
19 are?

20 A. Yeah. There's some professional judgment that's involved,
21 but yes.

22 Q. And that's one of the professional judgments is to determine
23 what the accurate rate is to use, the starting rate for your
24 decline, is it not?

25 A. Well, that's why I used what I used, because in the year

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1 2015 it averaged 1.25 barrels a day and 30 MCF a day. And I have
2 37 years of production history by which to forecast my production
3 to this point, so a month or so when the operator tells me that
4 it wasn't producing at its peak capacity and he'll -- I'm sure
5 he'll talk about that later, or producing at normal capacity, I
6 don't think you -- I don't think you use a non-normal number to
7 calculate a value. I --

8 Q. That is the judgment factor in your -- if you believe, hey,
9 that the last -- the most recent 45 days that I have of
10 production, that the well is producing whatever it can produce,
11 there's no restrictions or no other issue with the well, then
12 that would be representative of the current maximum rate even
13 though it may have been able to produce at a higher rate earlier,
14 would it not?

15 A. No, because if you go back on this well and go back years,
16 you go back to 2012 and '13 and '14, there were months where the
17 well was down and it came right back to the 30 MCF a day and
18 one-and-a-quarter barrel a day. So history repeats itself.
19 These wells need to be babysat with plunger lifts and timing and
20 when you set it and the pressures.

21 So just because you had a down half a month or a down month,
22 doesn't mean you ignore 37, 38 years of historical production and
23 actual sales from the nine months prior to the October/November
24 that you happened to tell me about.

25 So I -- in my professional judgment, I think you use more

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1 than just the last 45 days of which to judge 45 or 50 years of
2 future economics.

3 Q. And that's your economic method. But as you testified at
4 the Devon case that the counsel asked you about, you also said,
5 hey, if I'm really looking at the -- what the value of the well
6 is, I have two other methods I use.

7 A. Yes.

8 Q. But I'll call it Method 2. This is where you look at a
9 daily barrel --

10 A. And, again, those other methods were to calculate a fair
11 market value that you would take a well to auction and regular
12 sale.

13 Q. I didn't have a question on the floor, but I'll -- okay.

14 Let's get the daily -- what I heard you say is another way
15 to look at it to come up with the value of this well is to take
16 \$25,000 times the net daily barrel from Mr. Singer and \$5,000 for
17 each net MCF, correct?

18 A. MCF per day -- net MCF per -- yes, sir.

19 Q. Okay. And the net to him is going to be that number that's
20 on -- that we talked about earlier. It's going to be the roughly
21 75 percent -- .7568359, is it not?

22 A. Yes, sir.

23 Q. Okay. Well, let's first do it on the gross number. If we
24 had that times 1.25 barrels of oil, what would that be -- what's
25 that number, 25,000 times 1.25?

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1 A. 1.25 times .75 --

2 Q. I'm using your number of gross 1.25 barrels a day.

3 A. Times .7568. 1.25 -- and that's going to be .946.

4 Q. Don't do the reduction right now. I want to get the gross

5 number. 1.25 times \$25,000 is what?

6 A. 37,500.

7 Q. Thank you. I don't think that's right.

8 A. No, let's see. 1.25 times 25,000, 31.25.

9 Q. \$31,250, correct?

10 A. Yes, sir.

11 Q. Okay. Then the same with the gas, we assume 30 MCF a day

12 gross at 5,000 per daily barrel, that would be 150,000, would it

13 not?

14 A. Yes, sir.

15 Q. Add those two together, I come up with 181,250, correct?

16 A. Yes, sir.

17 Q. But Singer's interest is only .75 -- I'm not going to take

18 it out all seven digits. I'm going to go .7568. But if we apply

19 that factor to that, using this methodology, what does that come

20 up with?

21 A. 137,170.

22 Q. 137?

23 A. 170.

24 Q. And in the alleged damage to the Coffey well, when you

25 were -- worked for Devon, that was another methodology you

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Oklahoma City, OK 73102 * 405.609.5403

1 suggested looking at for market value?

2 A. Yeah. What I -- and I'm sure you'll get to it. What I did
3 was I took a PV10, this one number, this method we just did is
4 another number, and then another metric, which I'm sure you'll
5 get into, is a third case, and I added those three together and
6 divided by three to get an average, which ended up being around
7 PV15.

8 Q. Okay. Let's go to Method 3. Method 3 that you used to
9 evaluate the value of the working interest in the well, and
10 that -- at least in the Coffey well, was you took the net revenue
11 and took it times 48, did you not?

12 A. That's correct.

13 Q. I'll just put the formula up there right at 48 times average
14 monthly net revenue.

15 Now, here you have opined, earlier in this trial on direct
16 examination, that Mr. -- or Singer was averaging about \$3,600 a
17 month, did you not?

18 A. That was our -- that was an average monthly net cash flow
19 from January 15th through September 15 of net cash flow after
20 expenses and -- operating expenses and royalties.

21 Q. That was not after royalties. That was before royalties,
22 was it not? If you want to look at your chart that I'm looking
23 at, it's about Page 7 of your exhibit, summaries, revenues
24 expenses, and you came up with \$36,000 for a nine-month period --
25 or ten-month period that was -- pardon me.

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Oklahoma City, OK 73102 * 405.609.5403

1 You came up with net revenue before royalties of 36,021, you
2 took out operating expenses 3,385, and you came up with 32,636
3 that -- for that nine-month period, you divide that by nine, it
4 averages about 3,600 a month, does it not?

5 A. Yeah, but I think the gas revenues were -- those were net
6 revenues and I would have to go back and look at the plant
7 statement to verify.

8 Q. Well, your line says that was before royalties. You have
9 got to take the royalties out --

10 A. It does say that, yes.

11 Q. If you take the royalties out, which is about 22 percent,
12 then instead of having 32,000, your number is 24,711, is it not?
13 That it reduces the number down to about \$2,744 a month, not
14 3,600?

15 A. That would be the case, yes.

16 Q. Go back to your economic summary. You have the net revenue
17 there for the 100 percent of .78124?

18 A. Yes. And you can --

19 Q. So if you take -- isn't that what you do, you take the
20 reciprocal of that, which is roughly 22 percent, and that's going
21 to require you to take out the roughly \$7,925. So the revenue
22 under your assumption of expenses there to Singer would only be
23 24,711, would it not?

24 A. Well, like I said, I would like to spend a minute and just
25 double check if that revenue number was before -- before

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Oklahoma City, OK 73102 * 405.609.5403

1 royalties. It says before royalties, but I want to double check
2 that real quick.

3 Q. Well, let's do it a different way then. And by the way, you
4 didn't reduce this number down either to 96 percent, you used --
5 this is to the 100 percent case also, that 3,600?

6 A. Yes.

7 Q. This is the first time you have done work for Singer Oil, is
8 it not?

9 A. Yes.

10 Q. And in your experience, do you think the operator is going
11 to be more likely to give you on a one-time basis maybe all of
12 the actual expense data, or do you think he would be more likely
13 to give it to the Internal Revenue Service, who he deals with on
14 a yearly basis?

15 A. I don't know.

16 Q. Would you pull up Joint Exhibit 71, please, and go to
17 Page 3. Have you reviewed the Schedule C that Singer filed to
18 his 2015 tax returns where he tells the government exactly what
19 his revenue is?

20 He says the gross -- the net revenue after gross production
21 tax is \$25,715 for that 11 months that he operated the well, and
22 says his lease and operating expenses is \$24,051. And if we go
23 over and look at all those other expenses, depreciation,
24 overhead, whatever, he actually shows he's -- on the bottom line
25 there he had a loss for that well of 17,481. Was that data

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1 furnished to you?

2 A. No.

3 Q. Okay. If we use -- let's just use that net income that
4 we -- because I think if you go back and look at it, Mr. Dick, I
5 don't want to belabor this through the court, and if you find
6 something different, tell the jury later on, but I think you're
7 going to find you did not take the royalties out and you did not
8 reduce it down to 96 percent. And that if you did, you're going
9 to come up with a number that's pretty close to that 25,715 that
10 he reported to the government.

11 And assuming that's only for 11 months, if we look at 25,715
12 for that 11-month period, we'll assume that's the net revenue.
13 I'm going to discount that, even having the lease operating
14 expense. Let's assume that's a net revenue that he had right
15 now. What kind of -- divide that by 11 for me, tell me what that
16 comes up with on a monthly basis?

17 A. Could you re-ask that question? I got lost, Mr. Mahaffey.

18 Q. Yeah. I want you to assume that what's -- by the way,
19 Judge, we would offer Joint Exhibit 71.

20 THE COURT: Is there an objection?

21 MR. SINGER: No, Your Honor.

22 THE COURT: Admitted.

23 MR. MAHAFFEY: Thank you.

24 Q. (By Mr. Mahaffey) Assume that that's the correct number,
25 25,715. That's the -- actually what Singer received, it shows

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U.S. Courthouse, 200 N.W. 4th St.
Oklahoma City, OK 73102 * 405.609.5403

1 there from the Smith well, for calendar year 2015. And my
2 question was just since we know it was 11 months, there was
3 really not any production to speak of in December, a couple days,
4 correct? So use 11 months, what's the average per month?

5 A. 2,337, round up to 2,338.

6 Q. Okay. Using this methodology, you took 48 times that, what
7 would it come out to be that the -- the market value is of the
8 well to Singer's interest?

9 A. I'm sorry. Do you want me to multiply 48 times 2338.

10 Q. Sure. That's -- that's what Method 3 is, isn't it?

11 A. No. You're just asking me to make a mathematical
12 calculation.

13 Q. I'm having you make a calculation based on the actual
14 revenue that he reported to the Internal Revenue Service. My
15 understanding is that's what you use, you take the net revenue,
16 which really takes expenses out. If you're going to use Method
17 4, aren't you supposed to take the expenses out?

18 A. Method 3?

19 Q. I'm sorry. Method 3, aren't you supposed to take the
20 expenses out?

21 A. Yeah. I take expenses out, and taxes and royalties, and
22 take that net cash flow times 48 months. That's why I'm saying,
23 this isn't Method 3. This is me just making a calculation for
24 you.

25 Q. I want the jury to see it, without even taking the expenses

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Oklahoma City, OK 73102 * 405.609.5403

1 out, what the value -- if you assume that was all profit, that
2 there was no expenses?

3 MR. SINGER: Judge, I think that the witness -- I'm
4 objecting. I think the witness has made a clarification that
5 what he's asking him to do are rogue mechanical or mathematic
6 functions, and he's trying to say that this isn't what his
7 testimony is relating to Method 3. So I'm objecting that we're
8 misleading the jury through this interchange and let the guy
9 answer.

10 MR. MAHAFFEY: I don't want to mislead the jury, Judge,
11 I'll let the -- flip it back to him.

12 Q. (By Mr. Mahaffey) Tell the jury how you would apply Method
13 3, if this is the true and accurate net revenue received by
14 Singer in 2015 of \$25,715 after he's paid gross production taxes
15 and the royalties.

16 A. I'm sorry. I was looking -- I was looking at this and
17 looking at this.

18 Could you ask me that question, please?

19 Q. I'm asking you to apply your Method 3. How would you apply
20 it, if that's his net revenue of 25,715?

21 A. If that was the net revenue for that well, take the net
22 revenues, which is the gross revenues less taxes, royalties, less
23 operating expenses equals net cash flow and multiply that, in
24 this case, around 48 months.

25 Q. Okay. Well, let's -- okay. So I didn't -- this is cash

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1 flow -- expenses. The expenses you were given to use were
2 \$4,880, were they not?

3 A. They were. That's what's got me a little bit bothered here.

4 Q. So let's deduct that from the 25,000, not the expenses he
5 reported to the IRS, let's just do the 20 -- the 4,880, what
6 would that be for net cash flow?

7 A. I'm sorry. Do you want to take the 25,715 minus 4,880?

8 Q. Right. You understand that's -- that's what he reported he
9 thought his net income was after royalties and taxes was \$25,715?
10 That's what went to Singer Oil from the Smith well?

11 A. Okay.

12 Q. And what I understand your definition of net cash flow, we
13 have to further reduce that by the expenses of which you used for
14 2015, \$4,880?

15 A. Okay. Well, this is -- so that's \$406 a month gross. So
16 I'll take that down by 3 percent to 96 percent working interest
17 and also take off 400 -- take off one month to make it 11 months.
18 I'm just trying to make apples to apples.

19 Q. Sure. I appreciate -- you do it the way you -- I want to
20 come up with an accurate number for the jury.

21 And would it be all right if I verbalize it while you're
22 doing it? As I understand it, you're going to take 4,880 and
23 deduct one month, which is 406, which is going to reduce that to
24 4,474. Then you're going to take it times Singer's .96875
25 interest, which is actually going to give us expenses of only

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1 4,334 net to Singer, correct?

2 A. That's right.

3 Q. So what would that -- if we used that number, 4,334 and
4 subtract that from the 25,715, that would be 21,381, would it
5 not?

6 A. Yes.

7 Q. And we could either divide that by 12 and then multiply it
8 by 48 or just multiply that by four to come up with your Method
9 3, would we not?

10 A. Yes, sir.

11 Q. Let's do that. That would give us a number of 85,523?

12 A. Yes.

13 Q. And that compares to Method 2, 137,170, and Method 1 --
14 where was that -- at least the PV15 of around 156,000?

15 A. If I could correct you. That mischaracterizes Method 1.
16 Method 1 is taking a straight PV.

17 Q. Then we'd have to go through that calculation and that might
18 increase that one slightly?

19 A. And then so that takes it, in this case, to PV10, and then I
20 added the other two numbers together and then divided by three.
21 And then it -- the final number came out around PV15. That was
22 the method I used. So in this case where you have got a PV10 of
23 231,500, you would -- that's Method 1.

24 Now, Method 2 is -- and I would have to reduce that by the
25 three -- by the 96.875 percent of that and then add Method 2,

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1 Method 3, and then you divide -- you add those together, divide
2 by three, and you -- I think you'll end up pretty close to PV15.

3 Q. And it's your -- it was your opinion that you have to take
4 into -- by using these three methods, this takes into account the
5 risks that a company might envision when looking at something, I
6 think it better encapsulates the fair market value. That's your
7 opinion, is it not?

8 A. That encapsulates a fair market value if the well is for
9 sale, yes.

10 Q. And that was the opinion you gave in the Court when you were
11 doing this type of analysis for Devon, was it not?

12 A. Yes, it was. Absolutely.

13 Q. And furthermore, you went on to say that the industry
14 standard is to discount the future net cash flow you're going to
15 get from a well back to present value, and that's done for a
16 variety of reasons, is it not?

17 A. Yes, sir.

18 Q. And it's to apply some risk to future production from a
19 well, and future pricing for the well, future expenses. So it's
20 -- in addition to discounting, it's also taking into account
21 risk, because there's always risk?

22 A. Yeah. That's why I didn't use just a straight PV10, which
23 is what the banks use to value their properties for other things.
24 I said, you have to apply these other risks, take into account
25 there's some uncertainties, and -- and take that into account.

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1 That's why I incorporated these other two methods to help me
2 apply risk to an older vertical wellbore producing at the rate
3 that we're looking at.

4 Q. And while that's the index that -- the standard that you
5 start to look at, then you make other -- you may have to make
6 other adjustments to determine market value?

7 A. Yeah. When you start at PV10, you're going to have to work
8 your way back from there to adjust it for risk.

9 Q. It takes into some of these risks -- the SEC, I think you
10 said, used -- it helps them evaluate the public companies that
11 use the PV10?

12 A. Yeah. And by the way, they use a flat -- use flat operating
13 expense too.

14 Q. And the PV9 or 10, the banks usually use that too, do they
15 not?

16 A. PV10 typically in the last couple of years, in trying to
17 assist their clients, the banks have been maybe using PV9 to have
18 a little bit better value.

19 Q. But you, in your experience, may have to risk it higher, to
20 PV15 or 15, 20, depending on your view of the risks, pricing
21 risks, mechanical risks, correct?

22 A. Yes.

23 Q. And isn't it your opinion that you're essentially looking at
24 PV10 and PV15 to get an estimated value for an operated property,
25 although if it's an older well you may have to factor there's

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1 some mechanical risks?

2 A. That is exactly what I said, and that if you're -- if a
3 buyer is looking at buying this well, those are the things they
4 take into account when putting together an offer to make an offer
5 to buy a well. They look at risk. They'll do a lot of the same
6 analysis I did, and they'll come up with a fair market value in
7 which -- typically you find, when people go out and buy wells at
8 an auction, that's the type of analysis I'm talking about. And
9 that's what I was asked to do by Devon. And it's not what I'm
10 saying, it's what I'm saying that's what clients, what other
11 people do to arrive at -- when they're looking at a well, what
12 are they thinking about? They're thinking about the economics,
13 they're thinking about the cash flow, they're thinking about the
14 rate, then they're adjusting it and applying risk for price as
15 necessary.

16 So I'm trying to, in that method, for that purpose of a fair
17 market value for that, trying to look at what would somebody make
18 an offer for. And if you're going to get ten offers, I think the
19 fifth one would be right in the middle, would probably be right
20 around this number.

21 Q. And that's a -- if you want to go out -- if the well's
22 been -- if this 1977 well has been totaled, using that
23 methodology is what you would expect to go out and have to pay to
24 find a replacement well that had that same type of profile of
25 1.25 barrels a day, 30 MCF a day, and those kind of expenses?

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1 A. Yeah. If you brought me this well and said what would you
2 pay for it and you brought me a sight unseen with the same
3 parameters, I would say I would probably offer somewhere in that
4 neighborhood we have been talking about.

5 Q. And in your opinion, and especially when you were doing the
6 Coffey well, you thought that was a reasonable -- in the market,
7 about a PV15 number?

8 A. If it was for sale, yeah. I would take it for the --

9 Q. And there, your opinions we talked about earlier was about
10 110, \$111,000 for that well?

11 A. Yes.

12 Q. But that wasn't your original opinion. You were originally
13 hired by the plaintiff in that case, H&S, kind of like Singer
14 here, and you gave him an opinion about twice that much, about
15 250,000, didn't you?

16 A. 220, 250, yeah, before I realized I was --

17 Q. And Devon is a client of yours?

18 A. Well, originally it was Felix.

19 Q. Devon called you up and said, hey, we want you to represent
20 them, and you went ahead and worked for them and didn't even tell
21 your other client that you were going to go work for Devon, did
22 you?

23 A. Yeah, I did. I said, I cannot work -- I cannot do the work
24 because Devon's a client I have had for 19 years.

25 Q. Well, is that the testimony you gave in the trial, that you

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1 gave them notice?

2 A. I believe so.

3 Q. Can you pull up Defendant's Exhibit 5, Page 50, please?

4 A. I told them I could not work -- I did -- you know, I did a
5 preliminary analysis, and then -- before there was any lawsuit.
6 And then when I was called to be a witness for H&S, I said I
7 can't because Felix has been acquired by Devon and Devon is a
8 client.

9 Q. Well, let's look and see if you don't recall being asked
10 these questions at that time about what notice you gave or not.
11 You were asked in Line 15:

12 "Question: It was after Devon bought Felix that you decided
13 you couldn't work for Andy anymore in this lawsuit; is that
14 correct?

15 "Answer: Yes, I felt it was a conflict of interest.

16 "Question: Did you ever tell Andy that?

17 "Answer: You know, I don't know if I did or not. I may not
18 have. I know I told you, but I don't know if I called Andy, and
19 I should have.

20 "Question: Did you ever -- you didn't send him a letter or
21 an email or anything, did you?

22 "Evidently I didn't."

23 Do you remember being asked those questions at that time and
24 giving those answers that you didn't even tell your former client
25 that you were going to work for Devon?

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1 A. I remember answering those questions like that, yeah.

2 Q. And you had some confidential data of H&S that you gave to
3 Devon, didn't you, without his permission?

4 A. Well, as it turns out, I didn't recall, but, no, I hadn't.
5 As it turns out, that information had been supplied by someone
6 else and when it was -- I didn't know how else they would have
7 gotten it. So I looked into that afterwards, and it was not me
8 who had supplied that.

9 Q. Would you go to Page 52, please?

10 A. I know what it says in there, but that was -- after the
11 case, I'm going to tell you that I checked into that and that
12 wasn't the case, Mr. Mahaffey. I did not supply that
13 information. That was --

14 Q. It was just a couple of months ago you were testifying in, I
15 think it was in Judge Friot's court.

16 A. Yes.

17 Q. And there you were asked, did you have -- Line 16, Page 50:
18 "Did you have permission from Andy to give them the work
19 product you paid for?"

20 "Answer: No, I didn't. I should have."

21 MR. SINGER: May I object, Judge? I'm wondering -- and
22 the basis of this objection is the relevance of this gotcha or
23 trap or whatever that's happening to our case.

24 Now, this is testimony in some other case in another
25 courtroom about a really -- well, I don't know -- that's not a

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Oklahoma City, OK 73102 * 405.609.5403

1 very material issue. So he is attacking this fellow on some
2 little something that was said months ago in a different case and
3 I'm saying not relevant.

4 MR. MAHAFFEY: It goes to the methodology he's using
5 Judge, and credibility. He's already told us that when he's
6 first gotten that almost identical type case, working for the
7 plaintiff, he had a number that was about twice what he came up
8 with at trial and used in a different methodology. So it goes to
9 this witness's methodology and his credibility with the jury as
10 to which method he's going to use.

11 MR. SINGER: I think that's probably fair play, Judge,
12 but to talk about what he told Andy, whoever Andy is, on some
13 case that's from months ago, I just don't see how this advances
14 our case today.

15 MR. MAHAFFEY: Andy was the plaintiff. Andy is like
16 Mr. Schuppan here. Andy owns H&S.

17 I mean, it goes -- Judge, this goes right to the credibility
18 of the witness of what he did and didn't do on his methodology as
19 an expert.

20 THE COURT: Well, I'm going to let part of it in and
21 I'm going to sustain the objection in part.

22 Q. (By Mr. Mahaffey) You're a registered engineer in Oklahoma,
23 are you not?

24 A. Yes.

25 Q. And in the -- isn't it true that part of your engineering

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Oklahoma City, OK 73102 * 405.609.5403

1 requirement, ethical rules, disciplinary rules is you're not
2 supposed to reveal facts or information from a professional
3 capacity except as authorized by law?

4 MR. SINGER: Judge, is that not exactly what I was
5 objecting about earlier? I mean, exactly what I was trying to
6 avoid getting into?

7 MR. MAHAFFEY: Well, Judge, I mean, he's offered him as
8 a registered professional engineer. And if the evidence is that
9 that's -- he's not complying with the rules of that, then I think
10 that goes once again to the credibility of his decisions.

11 MR. SINGER: If he cheated on some report or something,
12 that's one thing. But this, I just don't -- this is so far
13 removed from our case. It's just a real stretch to try to
14 criticize this guy over testimony months ago on something that's
15 so far unrelated.

16 MR. MAHAFFEY: Well, Judge, they're the ones that
17 brought up the Devon case. I mean, he brought it up in his
18 direct testimony. I mean, I don't know if I could have gone into
19 it if he had not brought it up and asked him about his testimony
20 he gave then and tried to have him explain away why it was
21 different, why he may have offered different opinions. And this
22 goes to the very heart of that because this is some of the
23 testimony he gave on why he did or did not do certain things.

24 THE COURT: I think you can move on, because I think
25 you have said everything that -- that you want to say about that.

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Oklahoma City, OK 73102 * 405.609.5403

1 Q. (By Mr. Mahaffey) Now, all of the three methods that we
2 have been looking at up here, as you have testified to, would
3 concern market value or fair market value of the well, and that
4 would presume that this well was totaled. We're going to look at
5 the total. Whatever that number is, it presumes the well can't
6 be repaired?

7 A. That value is the value of the well at that point in time
8 had it kept producing.

9 Q. And you were not asked to investigate or prepare any
10 procedure or protocol for possible remediation or repair of the
11 Smith well, were you?

12 A. No, sir.

13 Q. You have not made any such study or investigation about
14 whether this well could be repaired?

15 A. No, I have not.

16 Q. You don't know if the well has been totaled or not, do you?

17 A. No. I just know it has not been able to produce.

18 Q. And you don't know what efforts Singer has made to repair
19 the Smith well, do you?

20 A. Just the two times it's been rigged up on, that's the only
21 information I have.

22 Q. Certainly a common operation in the oil and gas industry to
23 try to remove foreign fluids or sand or debris is to do something
24 like a coil tubing job, is it not?

25 A. In some instances, that can be used, yes, sir.

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Oklahoma City, OK 73102 * 405.609.5403

1 Q. What evidence do you have that this well, the Smith well,
2 will not return to its pre-December 5 production rates if this
3 alleged foreign material of sand or -- mud is flushed out or
4 blown out of the well?

5 A. I don't have any.

6 Q. And it's your opinion that the cost to re-establish
7 production is difficult to estimate until the well is actually
8 reentered and the condition of the well determined?

9 A. Yes.

10 Q. You made one other comment that I want to address just
11 before close, and that is that you didn't think this well -- you
12 didn't think this well was making any water?

13 A. I didn't think it was making much, if any. I didn't -- I
14 don't think I had any water records or very -- I don't recall
15 what water records I had.

16 Q. Well, let's go -- if we could pull up Joint Exhibit 60.

17 You're aware that in the summer of 2015, roughly six months
18 before the alleged, you know, impact from the Edgar well, that
19 your client went out to the well to do some work on it, put a
20 standing valve in. And they looked at that report, they swabbed
21 the well down at that time to 6,200 feet and got 4.6 barrels of
22 fluid, did they not?

23 A. Yes.

24 Q. And it reports four barrels of produced water?

25 A. Yes. That's why they needed a plunger.

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1 Q. Say again?

2 A. That's why the well needed a plunger, because it had liquid
3 that had to be lifted.

4 Q. So at least we have some evidence that it is making some
5 water. And at that time, before any damage, the -- they swabbed
6 it down to about 6,200 feet, did they not? Is that showing
7 there? Maybe it doesn't. Let's go -- that doesn't show in that
8 one.

9 Would you pull up -- Judge, I would offer Joint Exhibit 60.

10 MR. SINGER: No objection, Judge.

11 THE COURT: Admitted.

12 Q. (By Mr. Mahaffey) Let's pull up Joint Exhibit 85, Page 1.
13 This is the actual field report.

14 MR. SINGER: Is that Sandline's report?

15 MR. MAHAFFEY: I think it is. I assume it is.

16 Q. (By Mr. Mahaffey) Doesn't this show that they swabbed --
17 that the fluid level, back when the well was, quote, operating
18 normally, was around 6,200 feet?

19 A. In that case, yes, sir.

20 Q. And when Sandline went out in November of 2016 to obtain the
21 water samples that we looked at earlier, they swabbed the well
22 back down to 6,200 feet, did they not?

23 A. Yes. They -- the first day they rigged up, they had initial
24 fluid level of 1,300 feet, swabbed some jelled water, collected
25 samples, and the next day the -- they rigged up and they said

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Oklahoma City, OK 73102 * 405.609.5403

1 they stacked -- they stacked it at 6,200. It doesn't -- it does
2 not say that they swabbed down at that point. They just said
3 it -- they could only get as far as 6,200 feet. I think that's a
4 different --

5 Q. That's the same fluid level that we had back six months
6 before the alleged damage was 6,200 feet, is it not?

7 A. It doesn't say that's a fluid level. It just said it
8 wouldn't go any deeper, so I'm assuming that's sand in the
9 tubing, but --

10 Q. Would you look on -- down on Column 1. Does it not say at
11 12:30 time that the fluid level was 6,200 feet?

12 A. Yeah. It says 12:30, 6,200 fluid level, stacked out, sand
13 in cups, shut well in.

14 Q. And you know they didn't even use the normal cups? They
15 used some smaller cups that they were using. Are you aware of
16 that?

17 A. No.

18 Q. And as your experience as an engineer, though, sand is one
19 of the easiest things to blow out and flush out of a well, is it
20 not? It's not like dried up mud, you just go in and jet it out
21 with either -- generally flush it with water or flush it with
22 like nitrogen gas?

23 A. I don't know if I would go as far as saying it's one of the
24 easiest things to blow out. Sometimes you have to go in with
25 baler, sometimes you have to go in and drill it, sometimes you

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Oklahoma City, OK 73102 * 405.609.5403

1 can get it out with nitrogen. Every situation's a little bit
2 different.

3 Q. I want you to assume there's going to be testimony from
4 Newfield that you could spend no more than a day and a half of a
5 coil tubing rig that would have a -- it's the deluxe, has both
6 water and nitrogen on it, but for no more than \$22,500 you could
7 go try to blow this tube out if you thought it was clogged up.

8 Isn't it true, if this was your well, you would, before you
9 walked away from a -- whatever you think it is, whether it's 150
10 or \$350,000 asset, you would go try to do that, would you not?

11 A. I don't know if -- I don't know. I would have to -- I
12 wasn't -- I wasn't asked to go look at that in depth.

13 Q. Let me ask it this way: If Newfield's paying for it, how is
14 your client harmed for going out and trying it and seeing if he
15 can't repair?

16 MR. SINGER: Object to the form, Judge. Newfield's not
17 paid for it. They never volunteered. That's a crazy
18 hypothetical.

19 MR. MAHAFFEY: That's not a crazy hypothetical.
20 Counsel knows it.

21 THE COURT: Just a moment. Overruled. I'll let him
22 answer the question.

23 Q. (By Mr. Mahaffey) You may respond.

24 A. If it was offered to go in the hole with coil tubing -- I'm
25 trying to think of why that wouldn't work. It would be worth

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Oklahoma City, OK 73102 * 405.609.5403

1 a -- worth a try maybe.

2 MR. MAHAFFEY: If I can have 60 seconds, Judge.

3 THE COURT: You may.

4 MR. MAHAFFEY: Thank you, Mr. Dick.

5 Thank you, Your Honor. We pass the witness.

6 THE COURT: Very well.

7 MR. SINGER: Judge, in light of the time, we'll call
8 our next, Dr. Dan Arthur.

9 THE COURT: Very well.

10 MR. SINGER: Judge, may I have permission to go get my
11 witness?

12 THE COURT: Yes. Is Mr. Dick excused?

13 MR. SINGER: Yes, he is.

14 Thank you, Mr. Dick.

15 THE COURT: Ladies and gentlemen, do you-all need a
16 brief break? Because we plan to stop today at 4:30, and we will
17 not meet in session tomorrow because the courthouse is closed and
18 we will resume on Monday morning. Do you need a brief break?
19 Because we're going to go straight through for 4:30, if we can,
20 because the Court has a criminal matter at 4:30.

21 Let's take a ten-minute-or-less break. Thank you.

22 (Break was taken.)

23 THE COURT: Mr. Singer, we're ready to proceed. And we
24 will work until 4:30.

25 MR. SINGER: Yes, ma'am. May it please the Court.

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1

DAN ARTHUR,

2

after having been duly sworn, testified as follows:

3

DIRECT EXAMINATION

4

BY MR. SINGER:

5

Q. Mr. Arthur, would you identify yourself, please, for this
jury?

7

A. My name is Dan Arthur. I'm a petroleum engineer and
registered professional engineer.

9

Q. How many states are you a -- professionally registered?

10

A. So I'm registered, practice engineering in 31 states in the
United States. I'm also a registered professional engineer with
the Society of Petroleum Engineers so that I could do that on a
worldwide basis.

14

Q. Are all of your licenses in good standing?

15

A. Yes, sir.

16

Q. And I didn't ask, although I know the answer, are you
licensed in Oklahoma?

18

A. Yes.

19

Q. Okay. And you said professional -- or rather, petroleum
engineering. Do you have any experience, education and training
in the pertinent aspects of underground hydraulic fracturing as
they relate to this case? Do you have experience?

23

A. Yes.

24

Q. Could you explain your practical experience regarding the
design or the implementation or the evaluation of similar

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1 fracture stimulation jobs?

2 A. Sure.

3 Q. Just briefly, sir.

4 A. Okay. I -- I'm a petroleum engineer and -- and hydraulic
5 fracturing is a reservoir well completion technique, is what they
6 call it. And I had that training in college.

7 Out of college, I worked -- or before really completing
8 college, I worked for Haliburton in Oklahoma City. Used to have
9 a camp down on South MacArthur I worked out of, primarily in the
10 area that's this subject area, which they -- is kind of the
11 Anadarko Basin.

12 And anyway, then went to work for a small oil and gas
13 company, Questa Energy Corporation, and served as a field
14 engineer. I didn't have an engineering degree, but that's what
15 they called it. And I did -- oversaw drilling and production
16 operation, as well as completion log and all the various things
17 we did, at least at that time.

18 And then went to college, got a degree in petroleum
19 engineering and went to work for the U.S. Environmental
20 Protection Agency. So for about a year and a half, I was the
21 only petroleum engineer employed at the EPA on a nationwide
22 basis. Gave me a lot of opportunity.

23 I was in the Underground Injection Control Program, which is
24 the regulatory program under the Safe Water Drinking Act that
25 essentially tries to allow injection operations to occur in an

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1 environmentally safe manner. So certainly had a safe -- had an
2 environmental focus, but we looked at all sorts of injection,
3 including well completions on wells. And even today, if you frac
4 a well, let's say diesel, you have to get an underground
5 injection control permit, either from the state or from the EPA.

6 And after I left EPA, I went into consulting and worked on a
7 variety of different issues from water, water recycling, water
8 treatment, injection wells, oil and gas industry support in a
9 variety of different manners, and have helped with -- helped a
10 variety of different companies with hydraulic fracturing design,
11 implementation, resource preparedness and -- and things related
12 to drilling and -- and all those things.

13 Q. Comfortable in your skin, then?

14 A. I hope so.

15 Q. Did you have full access to the materials that you needed to
16 render a set of professional opinions in this case?

17 A. I did. We did ask for pressure curves from the frac and
18 were told that those didn't exist, although I'm sure they did,
19 but that would have been helpful.

20 Q. Okay. But setting aside that piece of documentation we
21 weren't quite able to get, did you have the other materials that
22 you needed so you can opine in this case?

23 A. Yes, sir.

24 Q. All right. Can -- because you're our expert, let's talk
25 about your relationship with us. Can you tell the jury how you

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1 came to be involved?

2 A. You called me up and -- and asked me if I would be
3 interested in doing this. We talked about the case, and -- and I
4 became involved.

5 Q. Okay. This is important: Were you hired in order to
6 confirm somebody else's preexisting belief or were you hired to
7 conduct your own review?

8 A. Well, first off, I have been around the block a little
9 while, and -- and I do my -- my analysis from my own opinion,
10 period.

11 Q. Has anyone interfered with your independence or with your
12 independent judgment as far as your opinions go on this case?

13 A. No, nor would I allow that to happen.

14 Q. Okay. Now, the binder in front of you -- the binder in
15 front of you, sir, that is -- would you verify that that is your
16 full report?

17 A. Yes. I just looked through it and this is the report that I
18 put together for -- for this case.

19 Q. And that includes some exhibits and other things that you
20 thought were important and helpful?

21 A. Correct.

22 Q. Okay. Now, what I would like to do now is sort of step back
23 and I would like for you to visualize or tell the jury just
24 immediately prior to this fracking -- the first fracking stage
25 being initiated, okay, if we froze that moment in time, took a

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1 survey of the general factors that were in play, what aspects of
2 this particular fracking job on this case would have posed a
3 concern or perhaps a red flag to a reasonably prudent horizontal
4 driller?

5 A. One of the issues in this case that I think is -- is --
6 well, really, there's two major ones.

7 THE COURT: Could we pause just a moment?

8 Counsel, approach.

9 (Bench conference held outside the hearing of the jury.)

10 THE COURT: I'm just noting that you have difficulty
11 hearing. Why don't you move on the end of that, I believe over
12 there?

13 MR. MAHAFFEY: Thank you. I will.

14 THE COURT: You may proceed.

15 (In open court.)

16 MR. SINGER: Thank you, Your Honor.

17 Q. (By Mr. Singer) Do I need to repose the question?

18 A. Yes.

19 Q. Give us those checklist items that you would -- stuck out at
20 you.

21 A. Okay. So in -- in trying to plan a hydraulic fracturing job
22 for a horizontal well, there's a couple of things that come into
23 play and that we have learned since high-volume hydraulic
24 fracturing was started.

25 So, you know, you have to think a little bit that, you know,

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1 there's a half a -- there's a half a million oil and gas wells
2 that have ever been drilled in the State of Oklahoma, because,
3 you know, there's over maybe four and a half million in the
4 United States. You know, that stuff started in the 1800s, right?
5 Well, so there's a -- a lot of things to consider.

6 And in this, when we do high-volume hydraulic fracturing
7 from long-reach horizontal wells, so they, you know, they drill
8 horizontally in the formation, you want to look what's around
9 you. And in this case, the Singer well was within 207 feet of
10 the wellbore. It was proposed to be about 220 feet, but -- but
11 ultimately the well became about 207 feet in proximity. So kind
12 of lateral distance from the Singer well to the closest point on
13 the horizontal well. And that's pretty close. It may seem, you
14 know, think 200 feet away, less than a football field. So, one,
15 that's a concern.

16 The other -- the other thing that you want to think about
17 when you're trying to plan is the Singer well was producing from
18 the same formation for a long time. Right? So I think you --
19 you probably saw some of the -- the economic stuff that were
20 done, and they showed that the -- the well, the Singer well had
21 been producing oil and gas.

22 Well, what happens with any oil and gas producing well is
23 it -- is when you produce hydrocarbons and gas and water out of
24 that well, it reduces the pressure in the reservoir where those
25 hydrocarbons exist. So now, I do that over time and the pressure

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1 decreases a lot.

2 So now I'm going to come over and do hydraulic fracturing
3 job where I'm going to use really high pressure, you know,
4 high-volume hydraulic fracturing. So what they do is they --
5 they pump into the well a slurry of kind of water and sand,
6 mostly, to try to break the formation down. So high pressure.
7 And so now I have got high pressure over here, I have got low
8 pressure over here, or pressure sink is what they call it, and --
9 and I want to do something to plan that -- that -- so, one, I
10 know I'm really close now. And if you look at a lot of the
11 published literature, you know, analysis done by Schlumberger on
12 this term they call well hits, which is a -- or frac hits, excuse
13 me, which is where fracking one well might, you know, impact
14 another well, you know, typically I think if you're less than
15 600 feet, you know, you're going to have a problem. George Keen
16 from Apache was noted as saying, if you're less than 400 feet,
17 it's just almost a given.

18 So if you think you're going to be close to another well,
19 and then not only close to another -- say another horizontal well
20 that you haven't produced yet that doesn't have a pressure sink,
21 so it doesn't have low pressure, so I still got high pressure and
22 high pressure, that's one thing. But now I'm going somewhere
23 where I have got a lot of low because I have been producing a
24 well and I'm going to apply high pressure over here, you think
25 pressure goes from high to low, it just does, you know.

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1 And -- and so what I would be looking at in advance of that
2 is what I'm going -- what am I going to do to avoid a problem
3 there. So am I going to look at maybe, you know, skipping a
4 stage near that, am I going to look at shorter, you know, frac
5 stage intervals, or doing something different with how I design
6 and plan?

7 And, you know, those are some of the things, Counsel, that I
8 would -- would probably be looking at -- at doing that would
9 raise -- would have raised my concern that I would have tried to
10 at least look at planning towards.

11 Q. What I would like to do is go through the checklist. Okay?
12 So let me talk about the 207-foot distance, first question. Did
13 Newfield's decision to drive their underground lateral within
14 207 feet of the Smith wellbore make frac damage to the Smith
15 wellbore more likely or less likely?

16 A. The closer you get between wells, the more likely you are
17 going to be to cause damage.

18 Q. Would that likelihood of more damage to the Smith well have
19 been foreseeable to an ordinarily prudent fracker or an
20 ordinarily prudent horizontal driller?

21 A. So I'll answer that in -- in a way that I'm -- I perhaps
22 know might best drive the point home.

23 So you can look at what happened here and -- and wonder,
24 well, is this some new thing that the industry doesn't know
25 about. In 1980, when I was drilling wells and the Sooner trend

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1 was kind of northwestern Oklahoma area, it was common practice
2 for gas wells, if you were going to complete or frac a well at
3 that point, to notify your offset operators so they could shut in
4 their production and avoid being impacted.

5 Today, in areas like Oklahoma and the Permian basin of west
6 Texas, like around Midland, Texas, and Pecos, Texas, and all
7 that, operators will have a -- kind of a network where they will
8 notify operators in the region so that they could take necessary
9 precautions to do that.

10 We're seeing other operators, even in this area, if you talk
11 to the Oklahoma Corporation Commission, Cimarex, for instance,
12 that's in this same region of operation, has both horizontal
13 wells and vertical wells, and they take precaution on their own
14 vertical wells where they'll inject water into the wells before
15 fracturing in an effort to try to pressurize that reservoir to
16 decrease the -- the risk.

17 So I think that it -- this is a -- a pretty widely known
18 issue throughout the industry. This area of the -- what they
19 call the STACK play in Oklahoma is probably at the epicenter of
20 concern of that, and you would have known to take precautions and
21 so forth.

22 Q. Now, I want to focus your attention -- moving right along,
23 focus your attention on the horizontal lateral being drilled and
24 completed in the same zone that the original Smith well, that's
25 where I want to talk -- question: Knowing in advance that the

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1 preexisting Smith wellbore produced from the underground
2 Mississippian formation, would Newfield's decision to locate its
3 new horizontal lateral in that same zone of production create any
4 concern in the mind of a reasonably prudent fracking contractor?

5 A. I mean, you know, Newfield seems like a good operator. They
6 have -- they have leased minerals in this area that they want to
7 develop so that they can produce oil and gas. And -- and really
8 the -- the issue there is that they have got minerals in the
9 underground Mississippian formations, or the formations, that
10 just happened to be in the same group of formations where there's
11 older vertical well productions.

12 So certainly if you're going to be fracking into the same
13 geologic formation where there's already oil and gas wells that
14 are producing from, that would -- and they were nearby, that
15 would -- that would at least give you concern and you would
16 probably know about that in doing your due diligence and planning
17 your hydraulic fracturing job.

18 Q. In your professional judgment, does Newfield's decision to
19 drill to the same underground formation as the preexisting Smith
20 well make frac damage to the Smith well more likely or does it
21 make it less likely?

22 A. Certainly more likely in the same formation, although, you
23 know, there are -- I suppose you could be doing something in,
24 say, an adjacent formation or nearby formation, vertically
25 speaking, that could -- that could create a risk, but certainly

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Oklahoma City, OK 73102 * 405.609.5403

1 the same formation is an increased risk.

2 Q. Would more damage to the Smith well, in the same formation,
3 be foreseeable to an ordinarily prudent fracker or an ordinarily
4 prudent horizontal driller?

5 A. Yes. And that's why people have gone through to notify each
6 other, so that they -- and even take precautions with their own
7 wells so they can try to avoid damage.

8 Q. Okay. Now, I'm trying to move at a fast clip. I would like
9 to now move to one of the major points in your report having to
10 do with production perforations in the Smith well.

11 I would like for you to explain to the jury what a
12 production perforation is and then tell them why it's important
13 in this case.

14 A. So the Smith well is a -- is a vertical well, right? So
15 they just drill down vertically, like a water well or -- or
16 something like that. And it will intersect underground geologic
17 formations, and some of those formations have permeability. So
18 what you -- you might imagine is if you had a -- a concrete block
19 out on a hot sunny day and you poured water on it, the water
20 would kind of soak into that -- that concrete block.

21 You don't think about it, but that's because the concrete is
22 kind of porous and those pores are connected. So you got the
23 porosity, which are the holes in there, and the connectivity of
24 those pores is permeability. And -- and underground, especially
25 in places like here in Oklahoma, some of those underground

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1 formations have oil or gas in them, and that's what we look for.

2 And so what you'll do, just -- just like you would in a
3 water well. I don't know if any of you have -- you know, you're
4 on a rural water well, but a lot of people do, and -- what you'll
5 do is you'll find those geologic formations that have oil and
6 what you'll do is you'll set -- you'll set -- when you drill the
7 well, they drill the well, they set a steel casing, they cement
8 that steel casing so that it's environmentally safe and -- and it
9 doesn't allow any contamination of water. And then what they'll
10 do is they'll take a shaped charge and -- and explode it downhole
11 and it will shoot a hole through the casing, to the cement, into
12 the formation to allow oil and gas production from the
13 oil-producing formation to come into the wellbore. And they may
14 do multiple perforations into a particular zone. In the Smith
15 well, they actually have perforations into more than one
16 producing zone or hydrocarbon-bearing zone. So it's -- it's kind
17 of nifty actually where they'll -- what they'll call commingling,
18 but they will mix together on the production method oil and gas
19 from multiple hydrocarbon-bearing zones.

20 Q. Does Newfield's decision to drill in the Mississippian
21 within those same perforations in the Smith well that you
22 described, does that make frac damage to the Smith well more
23 likely or does that make frac damage less likely?

24 A. I think that's the same question you asked before.

25 Q. Okay.

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Oklahoma City, OK 73102 * 405.609.5403

1 A. You know, the same formations, the same set of perforations,
2 area, that region, so.

3 Q. Same answer?

4 A. Same answer.

5 Q. Then I'm moving on.

6 Let's talk about one of the core concepts in your report had
7 to do with the pre-frac notice that the government requires. Are
8 you with me?

9 A. Correct.

10 Q. Question: Please explain to this jury how at least five
11 days of advance pre-frac notice can be helpful to the typical
12 vertical wellbore owner, like this plaintiff, and like in this
13 case. So tell them why notice would have been helpful.

14 A. So kind of like I was describing before is if you know that
15 something's going to be happening near you, even at your house,
16 you can, you know, you can -- you can make plans to not have that
17 be a problem. I know I had a new house built next to my house
18 where I live in Tulsa, and there were days when they were putting
19 lacquer on the floors and it was just terrible over at my house.
20 And I told them, I said, I wish you would have told me, I would
21 have left for the day. And -- and they didn't.

22 And in this case, in the issue of notice, had they notified
23 Singer, he could have perhaps shut in his well, he could have
24 taken some sort of action or -- or at least had the opportunity
25 to have taken action to be able to do something to his well to

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1 try to minimize damage.

2 So you only have a few options. You could shut production
3 in while they're doing this hydraulic fracturing, so that's one
4 option, so that you're not producing it while they're doing this
5 and maybe almost pulling it forward, although they have already
6 got a depressurized reservoir.

7 But you could even take other options. Like I was
8 explaining earlier, he might have been able to pump water into
9 his well to try to protect it by depressurizing the reservoir, at
10 least to some degree. Other operators are trying that. The
11 effectiveness is sketchy, I think. We don't really know that for
12 sure, but at least you would have the opportunity to do
13 something. But without any opportunity, you know, that only
14 increases the potential for you to be negatively impacted by --
15 by someone conducting these type of operations. So it's just
16 really the neighborly thing to do.

17 Q. In your opinion, did Newfield give reasonable advanced
18 notice of the frac to this owner with respect to this Smith well?

19 MR. MAHAFFEY: Objection; Your Honor. There's no
20 evidence in the record right now what notice was given or not
21 given to -- I mean, Mr. Schuppan hasn't testified. We don't have
22 that evidence. And that's, I think, outside the purview of this
23 witness -- he's an engineer, I know he has expert reports, but
24 that's a factual issue, what notice was given or not given.
25 And -- foundation -- he's even looked at the Corporation

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1 Commission proceedings that we're going to get at some point that
2 show what notice was given. So I object as no foundation being
3 laid for this factual question.

4 MR. SINGER: If it's no foundation -- I'm trying to
5 move quickly, but I'll go more slowly and back up and lay a
6 foundation, if I may.

7 THE COURT: Very well.

8 Q. (By Mr. Singer) You heard the tone of Mr. Mahaffey's
9 objection with respect to your foundation. Can you tell the jury
10 about notice, what you looked at, what you know about fracking
11 -related notice? Give us a foundation, then we'll get into the
12 details.

13 A. So I looked at the -- the Oklahoma Corporation Commission
14 had an agreement that required Newfield to provide five days'
15 written notice or -- I think -- I think I would have to go back
16 and look at the wording, but five days' notice and -- and based
17 on my input from -- from the information that I reviewed, there
18 was no five-day notice given.

19 Q. Would an ordinarily prudent fracker or an ordinarily prudent
20 horizontal driller intentionally fail to give advance five-day
21 pre-frac notice to the owner of a nearby vertical?

22 A. Not common. All I'll say is that, you know, when -- when
23 you're working in an oil and gas company, there's a lot going on
24 and I -- I can easily see this being a simple oversight.

25 Q. Do you have an opinion within a reasonable degree of

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1 professional certainty as to whether or not Newfield departed
2 from accepted standards of reasonably prudent conduct when it
3 failed to give five-day pre-frac notice to this plaintiff?

4 A. It was a mistake. They should have -- they should have
5 given the five-day notice so that the appropriate -- or any
6 actions could have been taken to -- to protect the -- protect
7 their well.

8 Q. Okay. I'm going to change gears. We're trying to keep on a
9 certain pace.

10 I want to talk about frac sand. Question: What about the
11 discovery of actual frac sand inside the Smith wellbore? Can you
12 tell us -- tell the jury what that means, as you're doing an
13 investigation?

14 A. Okay. So if we --

15 MR. MAHAFFEY: Same objection, unless he lays a
16 foundation that he's been out to the well, has he seen frac sand
17 in the wellbore. I mean, there's no foundation laid at this
18 point that I have heard, Judge, that there's frac sand in the
19 well, that this -- unless he lays a foundation.

20 MR. SINGER: If Your Honor please -- well, if it's
21 foundation, I guess I can just back up and go more slowly, if I
22 may.

23 THE COURT: You may.

24 Q. (By Mr. Singer) Wellbore frac sand is the topic. Can you
25 tell this jury what you have looked at, the samples you have

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1 seen, the reports and so forth in order for you to make the
2 conclusions you made in that big report as far as sand goes?

3 A. So one of the key things in high-volume hydraulic fracturing
4 is to have an proppant, so that's -- that's really how a lot of
5 this works.

6 So if you remember, I explained that -- that you -- when you
7 do high-volume hydraulic fracturing, you're pumping a lot of
8 water and sand, and that's the majority of what's there. You may
9 have some other -- some other things in there, but mostly it's
10 water and sand. And so what you're -- what you're trying to do
11 is -- is pump into your well and -- in whatever stage they will.
12 So they'll break the horizontal well up into portions, you know,
13 maybe 30 different sections of that well that they will frac at a
14 time. And they'll perforate the casing in that horizontal well,
15 and then they'll -- they'll pump, you know, a pad and so forth
16 that may be water and some other things, maybe acid. But then --
17 then really you're pumping a blend -- a slurry of water and sand.

18 And what you're trying to do is you're trying to break the
19 rock down there, so you're trying to make cracks in it, because
20 without those cracks it's not very good at -- at producing oil
21 and gas. So it may have some porosity that may not have really
22 good permeability.

23 So what I'm trying to do is create a complex fracture
24 network. So if you can imagine, you know, like on your car, you
25 know, the windshield is safety glass. So if you can imagine

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Oklahoma City, OK 73102 * 405.609.5403

1 throwing a rock at it and it kind of breaks in kind of a spider
2 web sort of thing, that's what you're trying to do, you know,
3 thousands of feet underground. But what we want to do is not
4 only break it, then we want to keep that open so the oil and gas
5 can come through those cracks.

6 So we pump water to break it, really, and then sand in there
7 so that when we reduce the pressure those cracks try to close,
8 but now it's got sand in the cracks so they can't close all the
9 way. So it's giving me a pathway for all those hydrocarbons to
10 get to my wellbore.

11 So I high pressure, I frac it, get some sand in there, keep
12 those cracks open, and, you know -- and then I'm able to produce
13 hydrocarbons. Now, one of the things that has -- has happened
14 over the last several years since -- since a lot of this started
15 is we're pumping higher volumes of water and more volumes of
16 sand. So that's like a couple of -- of the -- of the new terms
17 that you'll hear in the oil and gas industry is PMS and PMW, pump
18 more water, pump more sand, you know. And -- and those have been
19 resulting in a lot of wells a lot of times producing more
20 hydrocarbons.

21 So, you know, it's kind of a, you know, interesting thing,
22 but -- but within doing that, there's -- there's different
23 controls that you can look at and you're dealing with really an
24 unknown. I mean, none of us really know what the earth is like
25 thousands of feet underground. I mean, you know, we might want

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Oklahoma City, OK 73102 * 405.609.5403

1 to think that, you know, we can, you know, we can go out and look
2 at surface outcrops of rock. You know, like if you have ever
3 driven on I-35 and seen the Arbuckle Mountains where they have
4 got rock outcropping, you know, to look at what things are like,
5 but -- but really you're kind of guessing. And -- and when
6 you -- when you put together your plan for fracking, you're
7 pumping -- pump more water, pump more sand.

8 And I have a couple of ways that things can happen. So --
9 so one is, when I do that, I'm trying to create a complex
10 fracture network. And -- and what can happen underground is I'm
11 creating fractures, but I don't really have concrete, specific
12 control of how those fractures form. And I don't know exactly
13 what the geology is doing, right? So the geology could be --
14 could have kind of preferential flow paths, it could have
15 existing fractures in there, it could have a bunch of different
16 things.

17 So -- so you -- and when you're -- when you're pushing this
18 much pressure against that stuff, I could send that frac sand and
19 water that goes a long ways or it could, you know, stay, you
20 know, closer around my wellbore in a complex fracture. But you
21 can imagine, I could have one big fracture or a whole bunch of
22 little fractures. You know, it's just -- it's just hard to know.

23 And the mechanisms and procedures by which you really run
24 your frac job are important. So you think about this from --
25 from the Newfield well on this case, they were pumping this

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1 slurry of largely sand and water at 80 barrels a minute.

2 So a barrel is 42 gallons, so you -- imagine the slurry of,
3 you know, 42 gallons of a slurry of water and sand that I'm
4 pumping downhole at 80 barrels a minute. That's a lot. You
5 know, you -- I mean, a lot. And I do each one of these stages
6 for, you know, thousands of barrels.

7 So to think that -- that that -- that those fractures are
8 going to emanate away from the wellbore, well, that's exactly
9 what we're trying to do, right? We're trying to fracture around
10 the wellbore. And a lot of times wells are -- are spaced so
11 even, horizontal wells, at, you know, maybe 600 feet.

12 Well, you certainly on -- when you're spacing that, you want
13 to develop the whole reservoir. You know, you don't want to
14 leave stuff out there that you didn't produce, right? That would
15 be wasting a resource. And it's the State of Oklahoma's goal not
16 to see our natural resources wasted. So they want to -- they
17 want to do everything they can to make sure that all the
18 resources down there are -- are able to be recovered so that we
19 can get taxes on them and all that kind of stuff and not leave
20 any of those trapped down there forever that you can't ever get
21 back. That's -- that's our goal.

22 So you think typically, in the best case, you know, you're
23 going to go at least 300 feet. Well, now we're only 200 feet and
24 we're not seeing, from what I could tell in the records, any
25 changes in -- in their procedures considering a vertical well is

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1 there, no changes in procedures of nearby ones. And then what we
2 saw, or what I saw from -- from the evidence that -- that came by
3 is that the -- the Singer well, you know, rather suddenly had
4 sand in it. And -- and we know that because they had a workover
5 rig company, a service company come clean out and -- and verify
6 that the well was plugged and that there was sand.

7 We also -- Mr. Singer provided me with samples that they
8 collected during that event, and those samples appeared to be
9 frac sand. I mean, I used to work with a lot of companies all
10 over the world, I used to work for Haliburton where we sold frac
11 sand, and I have worked on other cases where we have done this
12 and other efforts between -- where one operator is looking at how
13 this could be happening to their own wells, where there's no
14 lawsuit, no jury, none of that going on. So -- so we looked at
15 that and it looked like frac sand.

16 And then Singer Oil had that -- had sent that to a lab to
17 see if it was or wasn't. And -- and I don't recall the exact
18 wording on that, but -- but the lab analysis further confirmed
19 that what they recovered appeared to be frac sand.

20 Q. In your professional judgment, did the infiltration of frac
21 sand into the Smith wellbore make frac damage to the Smith
22 wellbore more likely or less likely?

23 A. Could you repeat that?

24 Q. Sure. Does sand in a -- the Smith wellbore, is it damaging?

25 A. Yes.

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1 Q. Can you explain?

2 A. So as you might imagine, when you -- when you want to
3 produce a well, you want that wellbore to have direct
4 connectivity to the hydrocarbon-bearing zone. And in this case,
5 if you can imagine us, you know, our -- or Newfield in this case
6 doing their high volume fracturing job, 80 barrels a minute,
7 bunch of different stages, lots of volume, pump more water, pump
8 more sand and having fractures that -- that can extend out
9 207 feet and -- and having sand that can, you know -- that can
10 communicate that far, and Singer Oil having the Smith well
11 producing, that well entering -- you know, going through those
12 fractures entering through the perforations in his well and
13 filling up the wellbore. The problem with that is that when --
14 when we're doing a frac job and we have got the stuff in the
15 slurry and it's, you know -- and it's pushing, you know, we're
16 really trying to do that to be able to -- to be able to cause
17 fractures in the -- in the hydrocarbon reservoir and then keep
18 them open, right?

19 Well, when you pump that stuff into a wellbore and then it
20 settles and it compacts, it gets pretty hard to then produce oil
21 or gas out of that same wellbore. The Smith well, it's a
22 vertical well that's actually completed in more than one zone.
23 It's got a lot of downhole equipment on it that allows that
24 production for multiple zones, and it's also a -- a historic
25 well. It's an older well that's been producing for a long time.

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1 And -- and I would say it's a marginal well from -- or a stripper
2 well, have you, you know, which is pretty common throughout
3 Oklahoma and Texas and Kansas, you know, all throughout the
4 Mid-Continent and a lot of places around the United States. But
5 when you're -- when you're doing those -- those wells that are,
6 you know, 32 MCF a day as opposed to, you know, millions of MCF a
7 day at higher pressures, this is still providing hydrocarbon,
8 still providing revenue and all that, but it's -- but it's lower
9 in pressure.

10 So when you compact sand in the wellbore, that
11 lower-pressure gas or oil, just -- it can't get through. So --
12 so now I have got a well that's full of sand that's not
13 producing, so what do I do?

14 Q. Would sand damage, as you have just described, been
15 foreseeable to an ordinarily prudent fracker or an ordinarily
16 prudent horizontal driller?

17 A. So that's a -- that's a harder question. If you look at
18 something that close, it would certainly be a concern. That, you
19 know, if you're only 207 feet away, you would certainly be
20 concerned about that, that you could damage that well, especially
21 if you have got a history of damaging other wells similarly, or
22 you know that -- like the area in Kingfisher County, this is, you
23 know, there's been -- I'm aware of several wells that have been
24 impacted similarly to the Smith well.

25 So -- and I'll -- and I'll say even -- even more so is that

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1 there's been industry leaders in hydraulic fracturing that have
2 said that the STACK play is particularly a concern for -- about
3 this because there's so many vertical wells, historical older
4 vertical wells that have been drilled in the area. So it's a
5 concern.

6 So you may not know that you're going to do that, but it's
7 certainly -- that's going to be a concern you're going to have.
8 It's going to be -- it's a risk. It's going to be something that
9 you're going to want to pay attention to. You may not know that
10 that's going to happen, but, you know --

11 Q. Might it be reasonably foreseeable, even if you don't know
12 metaphysically that it will happen, foreseeable, at least?

13 A. At 207 feet, you would expect it.

14 Q. We're shifting gears to our next topic and almost done.

15 You had mentioned something about production at the Smith
16 well terminating, so let me just phrase it -- or ask you this
17 way: What happened to the Smith's regular production of oil and
18 gas immediately after the Newfield frac?

19 A. Their production went to zero.

20 Q. Did -- or rather, make -- strike that.

21 Are there any other reasonable explanations for this jury to
22 consider for production going to zero immediately after the frac
23 other than the Newfield frac that we're talking about, any other
24 explanations?

25 A. Well, I think it's -- it's very prudent in any kind of --

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1 you -- you try to look at things forensically, at what -- what
2 are the potential things that can happen, right?

3 So this is -- this is not unlike what -- you know, what you
4 might see on NCIS or something like that. But for me, you know,
5 I'm a member of the National Association of Forensic Engineers,
6 and so you have to kind of look at it in that manner.

7 So you know what happened. What are the things that are out
8 there? And this is pretty common how -- how regulatory agencies
9 even look at those things when they see something that's happened
10 and -- and some things that are very simple. So what we know in
11 this case, from a timing perspective, you know, the Newfield, you
12 know, did their hydraulic fracturing operations and -- and, you
13 know, in that same timing sense, production at the Smith well
14 goes to zero.

15 We know that -- that the well, through -- through
16 investigation conducted by Smith -- or Singer Oil, that the well
17 had sand in it. We know that -- that the well also had
18 relatively fresh water in it.

19 So what I know about hydraulic fracturing is that we pump,
20 remember, water and sand, and those show up there. But, you
21 know, you got to look at what -- what else can happen. When you
22 drill a vertical well, you drill through freshwater aquifers to
23 get there.

24 But when you do that, you -- the State of Oklahoma, the
25 Oklahoma Corporation Commission requires you to set a water

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1 protection screen, which they call surface casing, through all
2 the fresh water. And then you have your production casing, so
3 you have got multiple -- multiple steel casing. So for the fresh
4 water to get in there, for that to be an issue, you -- you would
5 have to have failures of multiple things happen. And although,
6 you know, you can have casing leaks and all that, but I would
7 probably expect not to necessarily have fresh water in the well
8 because you -- I mean, for fresh, you would have to have multiple
9 casing leaks.

10 Now, for there to get sand in there, you know, I -- I
11 suppose you could have -- you can imagine, say, a case where you
12 had a flowing sandstone formation or something like that, but it
13 seems unlikely. I suppose that you could -- you could -- you
14 could fake it and dump sand down the well, but that seems kind of
15 silly to be able to go through all this and -- and that, and it
16 would be a little dangerous because you have a well that is
17 producing an explosive material, natural gas, I mean. And it
18 seems like what we're talking about here is not like some big
19 giant upside, like he's going to get paid millions and millions
20 of dollars by dumping sand in this well. That just seems kind of
21 silly.

22 So the thing that makes sense as I look at all those things,
23 is probability-wise, you know, yeah, you could maybe think there
24 was a casing leak and something there, but it wouldn't be fresh
25 water. I don't know where the sand would come from. So that

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Oklahoma City, OK 73102 * 405.609.5403

1 just doesn't make sense. So, you know, as you look through those
2 things, which I tried to do here, really the only one that makes
3 sense, you know, this is from hydraulic fracturing operations.

4 So the other thing, I think that -- for me that I considered
5 is I have -- I have seen interference from a -- a well being
6 fracked to another wellbore on -- on other occasions, so I tried
7 to apply that experience, and this is similar to what you would
8 see there.

9 And so the conclusion I came up with is that -- that this
10 would be certainly the most likely event and I couldn't really
11 think of another plausible activity that would cause this.

12 Q. In the form of a summary question, and perhaps even my last
13 question, do you have an opinion within a reasonable degree of
14 professional certainty as to whether or not the Newfield fracking
15 activity negatively affected the Smith well?

16 A. Based on my evaluation and -- you know, I have tried to look
17 at what they did during their fracking operations, how they --
18 how Newfield completed their well. They did a multistage frac,
19 which is pretty consistent.

20 The other thing that I saw that I think is significant, or
21 was to me, is in -- in the Newfield well, they did their
22 hydraulic fracturing operation with multiple stages, I think over
23 30 different stages total. So that would be like, you know, so
24 many feet apart for each stage, just -- that horizontal well, but
25 knowing that the -- that the Smith well was present within

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1 200 feet, I didn't see any change whatsoever in any stage of the
2 Newfield well, in how they fracked it. Every one of them was
3 virtually identical. You know, this much water, this much sand,
4 80 barrels a minute, 80 barrels a minute, 80 barrels a minute.

5 There wasn't anything when they got closer to the Smith
6 well, they didn't do smaller distance, you know, shorter frac
7 stages, they didn't do 60 barrels a minute, they didn't do lower
8 pressure, they didn't, you know, use less sand or more sand or
9 any of that. They were just pretty consistent.

10 So if you looked at the fracking records that they had, you
11 wouldn't be able to tell that there was any -- any difference
12 anywhere along that, which kind of surprised me. You would think
13 that if you were trying to plan for that, you would -- you would
14 do something. And I didn't -- I didn't see that.

15 And I saw a timely impact to the Smith well, I saw evidence
16 that would lead me to that -- that direction. I don't have privy
17 to what their -- how they planned it. I don't know what they
18 talked about. I don't -- you know, so there's things that I
19 don't -- I may not know, but I know what they did. I know how
20 they did it. I know what happened. And as you look at those
21 things together, it's difficult to come up with another
22 explanation, another scenario that would be different. And the
23 ultimate result in that was that they -- they took a well that
24 had been producing for a long time, but economic levels of -- of
25 oil and gas and -- and negatively impacted it where -- where

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Oklahoma City, OK 73102 * 405.609.5403

1 immediately after the frac it went to producing zero.

2 MR. SINGER: If Your Honor please, at this time I would
3 like to proffer Mr. -- this expert's full report. I would do it
4 on the same basis that I did with Mr. Dick. There were some
5 problems about maybe some -- little problems that we could take
6 care of later. Rather than burden the Court with messing through
7 that now, in light of the hour, I would just provisionally offer
8 it and then maybe on Friday I'll get with Mr. Mahaffey and we'll
9 talk it through.

10 MR. MAHAFFEY: I'll state my objections to the complete
11 report and then we can argue at a further time.

12 THE COURT: Very well.

13 **CROSS-EXAMINATION**

14 **BY MR. MAHAFFEY:**

15 Q. Mr. Arthur, you were contacted, I think you told me a month
16 or two before you gave your deposition back in August, were you
17 not, by Mr. Singer?

18 A. Correct.

19 Q. They did not contact you before they filed this lawsuit in
20 June of 2016 to get an opinion from you of what might have
21 occurred or didn't occur?

22 A. Correct.

23 Q. And you have given a number of depositions and testified in
24 court a number of times for different companies, have you not?

25 A. Yes.

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1 Q. And tell the jury what you're being paid to give your
2 testimony here today.

3 A. My hourly rate for expert testimony is \$350 an hour.

4 Q. All right. Now, in talking about your experience in
5 hydraulic fracturing, isn't it true that you, Mr. Daniel Arthur,
6 have not designed or supervised a fracture stimulation job in
7 Kingfisher County in the Meramec?

8 A. Correct.

9 Q. And certainly your -- you talked about being with
10 Haliburton, and then with Questa. When you were with Questa,
11 before you became a consultant, Questa was not drilling
12 horizontal wells at that time, were they?

13 A. Correct.

14 Q. All right, sir. And you talked about the notice. Isn't one
15 of the things that you reviewed the Oklahoma Corporation
16 Commission proceedings in the application that resulted in the
17 Commission approving the Edgar well being drilled at least
18 600 feet -- within 600 feet of the Smith well?

19 A. Yes.

20 Q. Joint Exhibit 5, please.

21 If you would, refer to Joint Exhibit 5. And do you
22 recognize that as being Oklahoma Corporation Commission order
23 643678, application of Newfield for an exception to what's called
24 the OCC Rule 10-3-8?

25 A. Yes.

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1 Q. And you -- you know that that's the rule that says that you
2 cannot drill closer than 600 feet unless you come out to the
3 Commission, give notice to the operator of that well and have a
4 hearing?

5 A. Correct.

6 Q. And if you look at Paragraph 7, does it give what the
7 Commission found as to why they're granting this relief? Do you
8 see where it says that it was the geologic testimony that the
9 wellbore, the proposed Edgar 1H-18X well would be closer
10 than 600 feet to the wellbore of the existing Smith 1 completed
11 in the Mississippi line, comma, source of supply? I mean, is
12 this one of the documents you looked at?

13 A. Yes.

14 Q. And, you know, you agree that you -- the Singer well is what
15 we sometimes call in the industry a marginal well, was it not?

16 A. Yes.

17 Q. That you're aware that the Meramec -- may I approach the
18 witness?

19 THE COURT: You may.

20 Q. (By Mr. Mahaffey) In your experience, you probably
21 recognize that core sample as being a -- part of the Meramec
22 interval of the Mississippian?

23 A. It's marked as that, so yes.

24 Q. It's been represented as that. And at least the Commission
25 found that it -- that -- that completing that well, drilling the

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1 Edgar well should have no adverse effect on the existing well.

2 That's what it says there, does it not?

3 A. It does say that.

4 Q. And I think you discussed the waste argument. We had some
5 testimony of -- of a prior expert, Mr. JP Dick, that this Smith
6 well might have only drained no more than 5 or 10 acres in the
7 Mississippian. And if that's the case, absent the drilling of
8 additional wells in that quarter section, you would leave a lot
9 of that Mississippi or Meramec oil and gas in the ground, would
10 you not?

11 A. I wasn't here for his testimony, so could you repeat what
12 you --

13 Q. Assume with me that the evidence was that this Smith well
14 probably is not going to drain more than 5 or 10 acres. That was
15 his testimony. I'm just telling you, you don't need -- you
16 haven't made a drainage study, have you?

17 A. No.

18 Q. Assume that was his testimony. My question to you is: If
19 that's all it's going to drain out of that northwest quarter,
20 would that not leave a lot of Meramec oil and gas that would be
21 undeveloped unless you can drill some additional wells?

22 A. Well, certainly you would want -- I mean -- okay. So let me
23 back up here.

24 So the idea that you want to fully develop the reservoir is
25 certainly in everyone's best interest.

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1 Q. That's what I thought you said on direct testimony.
2 Correct?

3 A. Yes.

4 Q. And you're aware your client has only a wellbore interest,
5 all they own is the right to that four-and-a-half inch wellbore
6 that's down there right now?

7 A. I do understand that.

8 Q. And that there's mineral owners and other people, Newfield
9 and others, that own the leases and the right to develop that
10 other -- the balance of that 160 acres?

11 A. Yep.

12 Q. And, I mean, I guess what I'm saying, looking under that
13 reason for relief again, the last line there, that's what you
14 were telling the jury earlier, you may not have used these
15 numbers, but waste would occur and you might leave 80 to 160
16 acres in the west half west half undeveloped, leaving substantial
17 oil and gas reserves in the ground if you don't drill this
18 lateral up through -- in that vicinity?

19 A. And that's the challenge is trying to, you know, drill that
20 lateral and develop that without negatively impacting that and
21 without leaving any resources there.

22 Q. Would you go to Page 2 of this exhibit, please? Look under
23 the ordering portion.

24 Did you see this part of the Commission order that noted
25 that -- allowing Newfield to drill the well in its proposed

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Oklahoma City, OK 73102 * 405.609.5403

1 location, closer than 600 feet to the Smith well, and that Singer
2 received proper notice, did not appear and did not object to the
3 relief requested. Do you see that?

4 A. Yes.

5 Q. Do you have any evidence to the contrary of what the
6 Commission found, that Mr. -- that Singer Oil was given notice of
7 that proceeding, did not appear and did not object?

8 A. That's what I understand is here.

9 Q. Okay. And let's look at the date on this order. Order is
10 dated July 31st, 2015. And I want you -- well, are you aware
11 from your review of -- Mr. Singer, he has indicated he did
12 receive this order shortly after it was issued by the Commission.

13 A. That's my understanding, yes.

14 Q. And go back to the top page. Look at the hearing date up
15 there in Paragraph 1. It says the hearing occurred June 30th,
16 2015, correct?

17 A. Correct.

18 Q. Certainly, at least as of that date, June 30th, and no later
19 than July received the order, you would believe Mr. Singer knew
20 there was going to be a horizontal well drilled in the vicinity
21 of his well, would you not?

22 MR. SINGER: Object to the form, Judge, only because he
23 accidentally misspoke. Not me, him.

24 Q. (By Mr. Mahaffey) Well, I meant to say Singer Oil. I
25 didn't mean to say Mr. Singer the lawyer. That's the cousin of

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1 Mr. Singer -- Mr. Schuppan.

2 But Singer Oil Company, Mr. Schuppan, would have had notice
3 no later than that, correct?

4 A. That the well would be within -- it would be no closer than
5 220 feet away.

6 Q. Right. Well, and I think you have already -- you testified
7 that whether it was 220 or 207, that would not affect your
8 opinion, it would -- it's whether or not it's going to impact or
9 not, you would expect the same result?

10 A. In my opinion, yes.

11 Q. That's 13 feet. I mean, 13 feet is the length of this
12 counter here. That's not a big difference on what's going to
13 happen?

14 A. Although you never know, I mean, of what goes on
15 underground, so.

16 Q. And your point was well taken. The fact that you're close
17 to a well, depending on the rock structure down there, it might
18 not -- it might bypass it or not affect it at all, correct?

19 A. Correct.

20 Q. We really don't know until we drill or complete it what it's
21 going to do?

22 A. Correct.

23 Q. Because we -- at least to this point in our -- you brilliant
24 techno guys, the engineers, we don't have the technology to
25 control necessarily the path of the frac? The frac job is

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1 going -- as you said, it's going to go the path of least
2 resistance and that could be some natural fracs that are out
3 there or it could be a path that we don't quite know what path
4 it's going to go?

5 A. Yes and no. There are things that we can -- that we can do
6 to control that -- that fracture network, putting -- you know,
7 having smaller stages in how you develop the pumping curve so
8 that you don't go from 0 to 80 barrels a minute right away, you
9 take that on a slower -- a slower step, you know, step by step,
10 and you can generally, from that, cause more of a fracture
11 network as opposed to a single large fracture fully developed,
12 you know, fracturing and injection into the formation through all
13 the perforations, close to select perforations perhaps.

14 So there's a lot of things that we do know in how we can
15 control it, but you're still dealing with a geology that we don't
16 know absolutely.

17 Q. I'm not a -- it's not a good thing, you can have a frac job
18 screen out, can you not?

19 A. Yes, you can.

20 Q. When it just goes out near the wellbore, but doesn't really
21 get out where you want to get it out there?

22 A. Yeah, both of those things can happen.

23 Q. All right. And as part of your review, did you also
24 review -- go to Exhibit 6, please. Pull up Joint Exhibit 6.
25 Thank you.

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1 The other order we looked at had a reopening date of
2 June 19, 2016. And I would refer you to Joint Exhibit 6. Are
3 you aware that this is an order, 650021 issued by the Corporation
4 Commission after having a final hearing in this case on the date
5 that they said they would, January 19, 2016?

6 A. Yes.

7 Q. And do you have any -- from your review of the Singer
8 material, do you have any evidence as to why -- I mean, that's
9 about a month, six weeks or so after the alleged communication
10 between the Edgar well and the Smith well, correct?

11 A. Yes.

12 Q. If Mr. Schuppan, Singer felt that his well had been
13 impacted, do you have any information or knowledge why he didn't
14 show up to the Corporation Commission at that proceeding and say,
15 hey, wait, they have impacted my well? Have you seen anything
16 that -- in the materials you looked at that explains that?

17 A. I have not.

18 Q. Go to the last paragraph of that order. They kind of repeat
19 their earlier finding, but they find out that it's necessary to
20 locate the well there and, once again, the current operator,
21 Singer Oil, received proper notice, did not appear and did not
22 object. Do you see that in the order portion?

23 A. Yes.

24 Q. And then look what's the date of that order down below
25 there?

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1 Go down one more paragraph, please, Daniel. The other way.

2 Yeah.

3 Issued February 22, 2016. So anyway, about a month or
4 two -- couple of months after the alleged impact, correct?

5 A. Yep.

6 MR. MAHAFFEY: Judge, we would offer Joint Exhibits 5
7 and 6.

8 MR. SINGER: All joint exhibits, never an objection,
9 Judge.

10 THE COURT: Admitted.

11 Q. (By Mr. Mahaffey) And did you also -- you're aware from
12 your experience in, I think the oil and gas industry, if you're
13 drilling a -- approximately 2-mile lateral such as this lateral,
14 there's a requirement that the applicant operator get what we
15 call a multi-unit, they have to give notice to all the people in
16 the -- like Mr. Singer if they want to drill an extended lateral
17 and how they're going to allocate costs. Are you familiar with
18 that?

19 A. Yes, sir.

20 Q. And can we go to Joint Exhibit 79, please?

21 In filing this application, which I think Mr. Singer
22 acknowledged that he received, go to the application itself, if
23 we could, Daniel. I don't know what page that is.

24 While he's flipping that, are you aware that the rules
25 require that an application for multi-unit horizontal application

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Oklahoma City, OK 73102 * 405.609.5403

1 have a plat attached -- here we go. Go to the Exhibit B to that,
2 go a few more pages. That has an Exhibit B attached to it --
3 there we go. Can you blow that up a little bit? That will show
4 the approximate location of the lateral and actually have a
5 description of it.

6 And you're aware here that it -- the description of this
7 lateral was no closer than 330 feet from the west line of
8 Sections 18 and 19? And that's what's plotted there, is it not,
9 approximately?

10 A. Well, it's difficult to tell specific --

11 Q. Well, we'll go back and look. But anyway, you see there's a
12 proposed 2 mile --

13 A. I have seen these sorts of things.

14 Q. -- on the west side there with an open circle down in the
15 southwest corner of 19? You recognize that as the customary
16 symbol for a proposed location, do you not, the surface location?

17 If I can point to the right -- I'm trying to point to that
18 and I'm not -- let me pull this up in color, it might make it
19 easier to see.

20 But before we leave that, could you go back -- there it is.
21 Now, how do I clear this?

22 Okay. Can you -- okay. I'm going to try to do this --
23 touch that. No, I can't see -- I'm touching the circle there but
24 my little X came up to the left of the circle.

25 You recognize that circle as being the proposed surface

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Oklahoma City, OK 73102 * 405.609.5403

1 location of the Edgar well, do you not?

2 A. Looks like it, yes.

3 Q. And that's where the surface and the vertical portion, and
4 they made the 90-degree turn and then drilled this lateral up
5 parallel to the west section line of 19 and 18, correct?

6 A. Yep.

7 Q. And up there in the northwest -- can you go circle the
8 northwest corner of 18?

9 There it shows the Singer -- maybe had the former operator's
10 name, Chesapeake, but shows the Smith well, does it not?

11 A. I can't read the name on there, but I'm pretty sure that's
12 it. It looks --

13 Q. I know this is -- we can blow it up, but I want you to
14 assume with me that says the Smith well. At least visually,
15 someone can -- I mean, can see how -- see how close that -- you
16 see the name's a little bit hard to read there in the bottom,
17 underneath the well symbol. It says Chesapeake. You're aware
18 Chesapeake used to operate that well years ago?

19 A. Correct.

20 Q. And it shows -- it's just underneath the black dot there,
21 it's hard to read, Smith No. 1. You can kind of see that there.
22 But in any event, does that not show the proximity of the
23 wellbore to the proposed Newfield well?

24 A. It appears to, yes.

25 Q. All right. And if you can go back to the first page of the

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Oklahoma City, OK 73102 * 405.609.5403

1 application on that -- on Exhibit No. 79. There we go. Second
2 page. Go to the second page, please.

3 There does it not give the proposed location of the
4 completion of it being no closer than 165 feet from the south
5 line of 18, no closer than 335 feet from the west line of -- or
6 19, and go below that, that's in 19. The lateral in 18 where the
7 Smith well is says the same thing, does it not?

8 A. 330 feet, not 335, but yeah.

9 Q. Certainly you as an engineer, or an operator, read that, you
10 would know, hey, if my well is 660 feet off the west line and
11 they're going to drill no closer than 330, they're going to be at
12 least 330 feet from my well?

13 A. Yep.

14 Q. All right. You're not disputing that -- when you said --
15 you talked about the notice, you're not disputing that Singer had
16 notice that Newfield was going to drill this well back in the
17 summer of 2015, are you?

18 A. Yeah. It's my understanding they knew it was going to
19 happen, just not exactly when they were going to do the frac.

20 Q. And you're not -- you don't have any issue, you're not
21 disputing that Newfield complied with all the rules and
22 regulations of the Corporation Commission, are you?

23 A. No.

24 MR. MAHAFFEY: I would offer Joint Exhibit 79, Judge,
25 since I referred to it.

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1 MR. SINGER: No objection, Your Honor.

2 THE COURT: Admitted.

3 Q. (By Mr. Mahaffey) You talked about some things that Singer
4 might have done such as shut in the well or load it with water.
5 My question to you is: Do you have any evidence that Singer Oil
6 Company at any time prior to December of 2015 ever shut in one of
7 his wells or loaded up with water when an operator gave him
8 notice that they were going to frac that well -- well within a
9 half a mile of his well?

10 A. I never made that inquiry with him.

11 Q. If there's evidence that he had received notice of frac jobs
12 from operators and other -- for his other vertical wells and did
13 not shut in his well or did not load his well up with water like
14 you said he might do, what evidence do you have to offer this
15 jury that he would have done that here even if he had gotten some
16 separate notice from Newfield?

17 A. So in preparing for -- you know, if you have a well, and I
18 can really only speak to this -- this specific well, because I
19 didn't look at any others -- your options are to do nothing and
20 think that maybe that's the best thing, to shut in your well,
21 maybe to load the well with water or whatever. That's his
22 decision. And it would be -- probably as a CEO and owner of the
23 company, I would be looking to an engineer to advise you, but
24 he's either going to go off of his experience or the experience
25 of his staff on whatever decision he makes.

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Oklahoma City, OK 73102 * 405.609.5403

1 So as far as what he would have done, that, to me, would
2 just be speculation.

3 Q. Didn't call you up for advice before --

4 A. Did not.

5 Q. And you don't know if he called anybody else for advice on
6 what to do or not to do, do you?

7 A. No.

8 Q. Now, you said something about you had seen some agreement
9 that talked about five-day notice. Where did you get this
10 five-day notice?

11 A. I would have to go review my -- can I take a minute and --

12 Q. Review whatever. And I know --

13 A. That's what I recall is that there was something with a --
14 that they would give him -- notify him directly before the frac.
15 I don't remember off the top of my head where that was.

16 Q. Let's not belabor that. I don't want to belabor that.

17 Mr. Arthur, you testified that -- I thought you said that
18 you had seen some lab report that said there was sand in the
19 well.

20 A. As -- as I recall, and I believe this is correct, so I
21 haven't -- I didn't look at this here just today or last night,
22 but I thought that Singer Oil had the -- the sand samples that
23 they -- that they had analyzed. And --

24 Q. Have you seen that -- we have never seen -- that's what I
25 was going to ask you, if you had some sand samples, you could go

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Oklahoma City, OK 73102 * 405.609.5403

1 analyze and see if it's the same kind of sand that Newfield used
2 in the well, could you -- and then that -- what did they -- you
3 have seen the reports and they used like Ottawa 70/30 mesh?

4 A. Yeah. I can't remember exactly what that was, but --

5 Q. But it's a common -- I mean, kind of a beach-looking -- like
6 beach sand almost, doesn't it, it looks like?

7 A. Kind of.

8 Q. And in any event, you're not aware or you can't point us to
9 any report or test or lab report that actually looked at any sand
10 samples and said that's the sand that came from the Newfield
11 well, can you?

12 A. Nothing that I have seen said that this is the sand from the
13 Newfield well.

14 Q. Now, you did talk about some water. You talked about the
15 fresh water. You have seen that a company called Renegade
16 Services came out about a year after the alleged damage to the
17 well and took water samples?

18 A. Correct.

19 Q. And you have seen those, have you not?

20 A. Correct.

21 Q. And those were in the very low chlorides, in the 390 to 460
22 chloride range, correct?

23 A. They were low chlorides, correct.

24 Q. Let me grab something. I want to show you something that we
25 looked at with a prior witness.

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1 But since you brought up chlorides, do you concur with
2 Mr. JP Dick that the chlorides in the Meramec are maybe as high
3 as 100, 110,000 parts per million?

4 A. Could you repeat that again?

5 Q. Sure.

6 Chlorides in the Meramec are in the range, could be maybe as
7 much as 110,000 parts per million?

8 A. Could be in the hundred-thousand range, yes.

9 Q. Okay. He said 110. And are you -- from looking at the
10 analysis you made of the Newfield frac records, isn't it true
11 that they fracked with KCL in their frac water, potassium
12 chloride?

13 A. Yes.

14 Q. And have you seen some of the lab reports from that, that
15 that had about 8,000 parts per million chlorides?

16 A. I don't -- I don't recall them analyzing for KCL in the lab
17 reports.

18 Q. I want you to assume with me there's going to be testimony
19 from a Newfield engineer that the water they were pumping in to
20 frac with on the Edgar had about -- just assume this for the
21 purposes of -- has about 8,000 parts per million chlorides.

22 A. Okay.

23 Q. If you were getting either formation water or frac water
24 over in the Smith wellbore, wouldn't you expect to see something
25 between 8,000 and 110 parts per million if that's the -- what I

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1 told you was correct?

2 A. It would probably be closer to the -- to the lower number.

3 Q. But you would not -- and I notice you pulled up your
4 Renegade reports. Do we know what exhibit that is? Pull that
5 back up, please. Let's go to Exhibit 65.

6 And this is what you were furnished on those water analyses,
7 was it not, Renegade Services report?

8 A. Yes.

9 Q. And if we go to the last page of that exhibit, it has the
10 actual quantitative data. The chlorides there ranged from the
11 low of 390 to a high of 460, correct?

12 A. Yeah, pretty fresh.

13 Q. Nowhere near 8,000 parts per million?

14 A. Lot more than that, fresh water.

15 Q. And as an engineer, that would give you pause to at least,
16 one, A, that signature doesn't match up, so maybe I need to take
17 another look here at what happens, or what is happening, would it
18 not?

19 A. Well, this is the first that I have seen that they were
20 using 8,000 parts per million KCL water. So I don't know if
21 the -- did they use all KCL water that was 8,000 parts per
22 million chlorides, so there were no fresh water? So typically
23 they do a fresh water pad. So from the frac records, they also
24 had a fresh water pad in there, or appeared to be a fresh water,
25 that's what the records say. So maybe they had a fresh water pad

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Oklahoma City, OK 73102 * 405.609.5403

1 and they had that. So I'm not sure exactly what you're saying is
2 correct.

3 Q. I apologize for interrupting you. But let me tell you to
4 assume that the engineers are going to say they mixed it at the
5 surface and all of it was mixed with KCL. They didn't pump
6 anything in that didn't have KCL that was less than 8,000 parts
7 per million.

8 A. Including the pad?

9 Q. That's -- that's my understanding, that that's what they
10 pumped in. And, obviously, you know as an engineer the reason
11 you put KCL in is you don't want the clays in the rock to swell,
12 do you not? That helps keep clays that might be in the
13 formation --

14 A. It does, but just adding KCL water doesn't necessarily mean
15 that it will only be 8,000, so I'm wondering how they calculated
16 the 8,000 parts per million.

17 Q. And I understand that, and you're certainly going to be
18 welcome to hang around and hear him testify. But right now, for
19 the purpose of my question, is it not a fair analysis from you as
20 an engineer in your -- you said you did some forensic work. If
21 the chlorides, the minimum chlorides were 8,000 and we're only
22 getting 3 or 400 parts per million, that raises a big question
23 about whether this water is coming from the frac water, does it
24 not?

25 A. If it's -- if it matches, it's certainly more of an issue,

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1 more -- more of a tie to that. If it's fresh water or different,
2 you would have to be looking at what else that that water could
3 have came in contact with to be able to get there. Furthermore,
4 I think based on the -- the sample period, I'm wondering if any
5 of that KCL could have settled out to --

6 Q. Well, let's talk about that.

7 A. -- to run into a lower --

8 Q. Sure.

9 A. -- lower PDS or chloride concentration. I don't --

10 Q. You take a sample of sea water, put it in a glass and leave
11 it there for 11 months, is it still going to be salty 11 months
12 later?

13 A. Sure it will, but we're not talking about -- about that.

14 We're talking about potassium --

15 Q. Let's talk about something that's more common to us. I like
16 sweet tea. If we put a bunch of sugar in our tea and sweeten it
17 up and then let it sit in the refrigerator for 11 months, as long
18 as it ain't oversaturated, it's still going to be sweet -- you
19 may have some that's settled out, but it will still be sweet tea
20 11 months from now, will it not?

21 A. It will, but it will be less of a -- less sweet than it was.
22 So some of those sugars are probably going to fall out.

23 Q. But not 90 percent of them or 95 percent of them?

24 A. That's right.

25 Q. Now, here to go from 8,000 to 400, you would have to have

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1 about 95 percent of the -- of it fall out, would you not?

2 A. So if we go back and --

3 Q. Answer that question. Isn't that not true, if it's going to
4 go from -- assuming what I told you is a fact, if it's 8,000
5 parts per million to go down to 460, would not 95 percent of the
6 salt have to fall out, the chlorides?

7 A. A considerable amount of the salts would have to fall out
8 for it to be that -- if it was that exact water.

9 Q. Five percent of 8,000 is 400, is it not?

10 A. I don't have a calculator, but --

11 Q. You know 10 percent of 8,000 would be 800, and half of
12 that's 5 percent, correct?

13 A. Yeah.

14 Q. So that would -- roughly, I mean, we have something more
15 than -- but it's plus or minus 95 percent would have to fall out
16 to get these low of numbers, would it not?

17 A. Yes.

18 Q. And you made a point that you said, well, you thought about
19 maybe I could have a -- a fresh water, like a casing leak, or
20 maybe someone could have put sand in the well, didn't think that
21 didn't seem likely or possible, but that's certainly -- that
22 could be some other explanation is you could have either a fresh
23 water coming in from a -- if it came in from a casing leak, that
24 would be another source of fresh water, would it not?

25 A. It's possible, but the likelihood of that seems awfully

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1 remote.

2 Q. And if someone did -- I mean --

3 THE COURT: Mr. Mahaffey, how much time do you have to
4 go, because we need to stop and --

5 MR. MAHAFFEY: Probably no more than -- I think 15
6 minutes, Judge, probably.

7 THE COURT: We probably need to stop before that
8 because they have to get the defendants back to Grady County.
9 And we were set for 4:30 here.

10 MR. MAHAFFEY: I'm happy to stop.

11 THE COURT: Excuse me a second.

12 MR. MAHAFFEY: I'm prepared to go as long as you're
13 saying to go, Judge, but --

14 THE COURT: I'm advised that we're going to have to
15 stop and do that criminal proceeding at 4:30 because they have to
16 be taken somewhere else.

17 MR. MAHAFFEY: I'll stop here.

18 MR. SINGER: Does -- are you passing the witness?

19 MR. MAHAFFEY: No, no. I -- I have -- I'm not -- I
20 have to -- there's some others I have to cover. I probably have
21 15 minutes left that I need to cover. There are some other areas
22 that are important areas that I must cover with the witness.

23 MR. SINGER: Judge, should we -- he's from another
24 town. I don't exactly know what it is that Mr. Mahaffey is
25 asking in terms of finishing up on the witness, but what is

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1 expected of this man?

2 THE COURT: Let me speak to Ms. Spaulding, because
3 they're doing something with the lights and everything here.

4 Our problem is we -- we probably won't have power anywhere
5 in the courthouse after 5:00, on this side of the building. I
6 think we said that to you earlier this morning. So
7 unfortunately --

8 MR. SINGER: Will you let him go 15?

9 THE COURT: No, because on the -- we have a -- I have a
10 criminal proceeding that's going to take about 30 minutes.

11 MR. SINGER: I just don't know what Mr. --

12 THE COURT: Why don't you come and approach the bench,
13 then?

14 (The following bench conference held outside the hearing of
15 the jury.)

16 MR. SINGER: I'm just not sure what is expected of my
17 witness, he is from another town and I was not under their
18 subpoena, but we want to cooperate with him.

19 THE COURT: How much -- we can't do it -- we can't do
20 it today. We cannot do it today.

21 MR. SINGER: Understood. I just need to tell this
22 fellow --

23 THE COURT: Do you want to go tell him?

24 MR. SINGER: Well, I don't know what to tell him. When
25 do you want him back?

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1 THE COURT: Monday.

2 MR. SINGER: If he's not available on Monday, could it
3 be Tuesday?

4 THE COURT: Yes, because -- yes.

5 MR. SINGER: Well, then there's no need to burden the
6 Court. I'll just make sure that Monday or Tuesday he returns.

7 THE COURT: Preferably Monday just for the --

8 MR. SINGER: I think it's possible that he has a
9 conflict, but I'll find out.

10 THE COURT: Okay. Do you want to let us know before
11 you leave?

12 MR. SINGER: Yes, ma'am, I will do it immediately. I
13 mean, it's sort of awkward to do it immediately before I go.

14 THE COURT: I just can't do it -- get it done, because
15 all the -- everything may be off on this side by 5 o'clock, so
16 that's why we got to get --

17 MR. SINGER: We'll just get him back and you may want
18 to subpoena him.

19 (In open court, in the presence of all parties and counsel,
20 and in the hearing of the jury.)

21 THE COURT: Ladies and gentlemen of the jury, we are
22 going to recess -- going to recess today. We will resume Monday
23 morning at 10 o'clock.

24 Let me remind you that during the break here you should not
25 discuss the case among yourselves or allow anyone to discuss it

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Oklahoma City, OK 73102 * 405.609.5403

1 with you or in your presence. I would also remind you that you
2 should not form any opinion about the case until you come back
3 for the deliberation portion of the case.

4 Be careful going home, have a happy Veteran's Day, and we'll
5 see you Monday at 10 o'clock. And we have a really unusual set
6 of circumstances going on, I think, but it happens sometimes and
7 we have got to get the criminal case handled and it's
8 inconvenient for everyone right now. So enjoy your weekend and
9 I'll look forward to seeing you on Monday.

10 (Jury exited.)

11 THE COURT: Have they brought -- is there anything
12 further?

13 MR. SINGER: No. You heard, and the witness said, he's
14 not available until Wednesday and you have approved that?

15 THE COURT: Yes. I mean --

16 MR. SMITH: Then he will be there without the necessity
17 of a subpoena?

18 MR. SINGER: I'll just have to go get him before he
19 takes off, okay? To -- or I'll call him tonight and if there's
20 any trouble, which there won't be, I'll call you. Okay? I'm
21 just going with the flow, guys.

22 I'll call my next witness on Monday. We'll pick it up
23 where we left off.

24 (Court adjourned.)

25

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REPORTER'S CERTIFICATION

2 I, Emily Eakle, Federal Official Realtime Court
3 Reporter, in and for the United States District Court for the
4 Western District of Oklahoma, do hereby certify that pursuant to
5 Section 753, Title 28, United States Code that the foregoing is a
6 true and correct transcript of the stenographically reported
7 proceedings held in the above-entitled matter and that the
8 transcript page format is in conformance with the regulations of
9 the Judicial Conference of the United States.

Dated this 11th day of November, 2017.

/S/ Emily Eakle
EMILY EAKLE, RMR, CRR
Federal Official Court Reporter

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